Summary of NOAA and EPA Response to Comments Regarding the Agencies' Proposed Finding that Oregon has Failed to Submit a Fully Approvable Coastal Nonpoint Program

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I. BACKGROUND

On December 20, 2013, the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) announced a 90-day public comment period in the Federal Register, with regard to the agencies' intent to find that Oregon has failed to submit an approvable coastal nonpoint pollution control program (coastal nonpoint program) pursuant to Section 6217 of the Coastal Zone Act Reauthorization Amendments. The proposed findings document explained the federal agencies' rationale for this proposed decision.[1]

Section 6217(a) of the Coastal Zone Act Reauthorization Amendments (CZARA), 16 U.S.C. section 1455b(a), requires that each state (or territory) with a coastal zone management program previously approved under section 306 of the Coastal Zone Management Act must prepare and submit to the federal agencies a coastal nonpoint pollution control program for approval by NOAA and EPA. For states with coastal zone management programs that were approved by NOAA prior to 1991, coastal nonpoint programs were to be submitted for approval by July 1995. Oregon submitted its coastal nonpoint program to the federal agencies for approval at that time. The federal agencies provided public notice of and invited public comment on their proposal to approve, with conditions, Oregon's coastal nonpoint program (62 FR 6216). The federal agencies approved the program by letter dated January 13, 1998, subject to the conditions specified in the letter (63 FR 11655).

Over time, Oregon made incremental changes to its program in order to satisfy the identified conditions. However, in the December 20, 2013, proposed findings document, NOAA and EPA determined that Oregon has not addressed all conditions placed on its program. Therefore the federal agencies proposed to find that the state has not submitted a fully approvable coastal nonpoint program.

NOAA and EPA's proposed findings focused on three conditions placed on Oregon's program—new development, onsite sewage disposal systems (OSDS), and additional management measures for forestry. In addition to seeking public comment on these proposed findings, the federal agencies also sought public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions. The specific agriculture questions NOAA and EPA asked the public to respond to were: (1) Has the State satisfied the agriculture conditions placed on its coastal nonpoint program?; and (2) Does the State have programs and policies in place that provide for the implementation of the 6217(g) agriculture management measures to achieve and maintain water quality standards and protect designated uses?

NOAA and EPA received 85 comments during the 90-day public comment period.[2] Nearly all comments were unique; only three comments were identical. The majority of commenters (46) supported NOAA and EPA's proposed decision while 24 opposed the proposed decision. Of the commenters that opposed the proposed decision, 15 did so because they believed Oregon had either fully met its CZARA obligations or just needs more time, whereas nine opposed on the grounds that NOAA and EPA should not withhold federal funding (a statutory consequence of finding that the state has failed to submit a

[1] See http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/OR%20CZARA%20Decision%20Doc%2012-20-13.pdf for NOAA and EPA's proposed finding on Oregon's Coastal Nonpoint Program.

[2] See http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/publicComments.html to view all comments received and who provided comments.

fully approvable coastal nonpoint program), although most acknowledged the State needs to do more to protect water quality. The remaining 15 commenters did not offer a specific opinion on the proposed decision although commented on specific aspects of coastal nonpoint source pollution management in Oregon; the majority believed the state needed to do more to protect coastal water quality.

As a result of the comments received, including comments and an updated coastal nonpoint program submittal from the state, NOAA and EPA find that Oregon has failed to submit an approvable coastal nonpoint program under Section 6217 of the Coastal Zone Act Reauthorization Amendments.[3]

This document provides a summary of the public comments received and NOAA and EPA's response to those comments.

II. GENERAL COMMENTS

A. Proposed Decision

Comment: The majority of commenters supported NOAA and EPA's proposed finding that Oregon has failed to submit a fully approvable coastal nonpoint program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). In addition to specific concerns addressed in other sections below, commenters noted that 16 years after receiving conditional approval for its coastal nonpoint program, Oregon still does not have a fully approvable program in place to control polluted runoff to coastal waters and protect designated uses, nor has the state adopted additional management measures for forestry where water quality impairments and degradation of beneficial uses attributable to forestry exist despite implementation of the CZARA management measures developed under Section 6217(g). A number of commenters also noted that the state failed to follow through on its 2010 commitments to NOAA and EPA to address three remaining conditions on its program related to new development, septic systems, and forestry by March 2013—commitments NOAA and EPA used to inform their settlement agreement deadlines with the Northwest Environmental Advocates.

While some commenters agreed that Oregon needs to do more to improve water quality, they did not agree with NOAA and EPA's proposed decision because they opposed withholding federal funding under CZMA Section 306 and CWA Section 319 (see Funding Section below for more discussion on this issue).

A few commenters noted NOAA and EPA should continue to work with Oregon to improve its water quality programs and that the state just needed additional time to meet the CZARA requirements.

Other commenters opposed NOAA and EPA's proposed finding. They stated Oregon does have adequate programs in place to meet or exceed the CZARA requirements. More specific comments are discussed in sections below.

Source: 1-C, 2-B, 4-A, 5-A, 8-B, 9-A, 13-A, 14-A, 14-C, 15-A, 16-B, 17-A, 19-B, 22-A, 22-C, 23-A, 24-A, 25-A, 25-B, 26-B, 28-A, 30-A, 30-B, 30-H, 31-A, 33-A, 33-B, 34-A, 35-A, 36-A, 36-B, 36-C, 37-B, 37-C, 37-D, 40-A, 41-A, 42-A, 42-B, 43-A, 44-A, 44-B, 46-A, 47-A, 48-B, 49-A, 53-A, 52-A, 54-A, 55-B, 56-C, 57-A, 64-B, 64-D, 66-B, 66-D, 68-B, 68-D

Response: NOAA and EPA appreciate the many comments received in response to the federal agencies proposed decision to find that Oregon has failed to submit an approvable program under Section 6217

[3] See [date] final decision document on Oregon's Coastal Nonpoint Program at ***.

of the Coastal Zone Act Reauthorization Amendments (CZARA). After carefully considering all comments received and the state's March 20, 2014, response to the proposed decision, NOAA and EPA continue to find that Oregon has failed to submit an approvable program. As described more fully in the final decision memorandum, although Oregon has made tremendous progress in addressing many of the original conditions placed on the state's program, the state has not met the conditions related to **** [add statement of where Oregon's program falls short]. Therefore, NOAA and EPA find that the state has failed to submit a fully approvable program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA).

Per the statute, beginning with FY 2015 federal funding, NOAA will withhold 30 percent of funding for Oregon under Section 306 of the Coastal Zone Management Act that supports implementation of the state's coastal management program and EPA will withhold 30 percent of funding for Oregon under Section 319 of the Clean Water Act that supports implementation of the state's nonpoint source management program.

Although some commenters would prefer NOAA and EPA provide Oregon with additional time to develop a fully approvable program and not withhold funding to the state, based on the CZARA statute the settlement agreement with the Northwest Environmental Advocates, NOAA and EPA do not have that flexibility. The Northwest Environmental Advocates sued NOAA and EPA in 2009 challenging the agencies' failure to take a final action on the approval (without conditions) or disapproval of Oregon's coastal nonpoint program and failure to withhold funds from Oregon for not having a fully approved program. NOAA and EPA settled the lawsuit in 2010 and agreed make a final decision on the approvability of the program by May 15, 2014, (extended to January 30, 2015, by mutual agreement of the settlement agreement parties).

B. State Legislature Has Been Obstructing ODEQ's Ability to Make Changes

Comment: One commenter stated that the Oregon Department of Environmental Quality (DEQ) has been working hard to get the improvements needed to improve water quality and meet all coastal nonpoint program requirements. However the State Legislature has been obstructing DEQ's progress and is the one that needs to take action.

Source: 25-C

Response: The federal agencies' final determination on Oregon's program is not based on opinions about whether the state legislature has been "obstructing" progress. NOAA and EPA have been working closely with DEQ, the Department of Land Conservation and Development (DLCD), and other agencies to complete the development of the state's coastal nonpoint program. We commend the agencies for the changes they have made to strengthen Oregon's coastal nonpoint program and address many of the remaining conditions.

C. Federal and State Governments Have Responsibility to Manage Waters

Comment: One commenter stated that the Federal and state governments have a responsibility to manage waters in the public trust for maximum long-term benefit for current and future generations. They noted this was not being done.

Source: 22-C

Response: Federal and state governments do have a responsibility to manage public waters for current and future generations. Congress created CZARA as a tool for NOAA and EPA, along with our state partners, to use to help protect coastal waters. NOAA and EPA strive to carry out these responsibilities within the constructs of federal statute and associated guidance.

III. FUNDING

A. Impacts of Withholding Funds

Comment: Commenters recognized that withholding funds under Section 306 of the Coastal Zone Management Act (CZMA) and Section 319 of the Clean Water Act (CWA) could negatively impact Oregon's ability to improve quality and support beneficial programs such as Total Maximum Daily Loads (TMDLs), Oregon Watershed Enhancement Board (OWEB) watershed planning and restoration projects, local land use planning, as well as the state's ability to provide technical assistance to coastal communities to address pressing coastal management issues such as coastal hazards, stormwater management, and growth management. A few commenters argued against NOAA and EPA withholding funds from these programs because they felt withholding funding from two important programs for addressing polluted runoff and coastal habitat issues in the state is counterproductive to accomplishing the goals of these programs and unlikely to result in the policy and programmatic changes NOAA and EPA are seeking. Others noted that withholding funding would hurt two state programs and agencies, Oregon's Coastal Management Program in the Department of Land and Conservation and Development and Oregon's Nonpoint Source Management Program in the Department of Environmental Quality, that have very little (if any) influence over some of the most significant remaining issues (i.e., forestry and agriculture). Some commenters also noted that withholding funds would negatively impact coastal communities and watershed groups that also rely on this funding from NOAA and EPA.

Other commenters supported withholding funds even though they acknowledged it may have some negative impacts initially. They saw withholding funding as the only way to get action in the state to improve water quality and protect designated uses. One commenter also noted that NOAA and EPA's failure to withhold funding sooner allowed Oregon to "limp along for over 16 years with inadequate management measures for its coastal nonpoint program while drinking water and other water quality impairments occurred."

Source: 1-C, 5-A, 8-B, 14-C, 16-B, 17-A, 25-A, 25-B, 25-D, 25-E, 25-F, 33-A, 33-B, 36-A, 36-B, 36-C, 37-B, 37-C, 37-D, 43-A, 48-B, 55-B, 64-B, 66-B, 68-B,

Response: NOAA and EPA recognize that withholding funding under Section 306 of the CZMA and Section 319 of the CWA could make it more difficult for Oregon to maintain the same level of effort on key programs that help improve water quality and protect salmon habitat, such as the state's coastal management, TMDL, and nonpoint source programs. However, the penalty provision in CZARA appears to have been designed to provide a financial disincentive to states to encourage them to develop fully approvable coastal nonpoint programs to provide better protection for coastal water quality. The statute directs NOAA and EPA to withhold funding when the agencies find that a state has failed to submit an approvable coastal nonpoint program (as is the case with Oregon). NOAA and EPA will continue to work with Oregon to complete the development of its coastal nonpoint program, and will direct a portion of Oregon's remaining federal CWA Section 319 and CZMA Section 306 funding, as

appropriate, to develop a fully approvable coastal nonpoint program so that the funding reductions from the penalties can be eliminated as soon as possible.

B. Oregon Stands to Lose $4 million per Year in Federal Funding

Comment: Several commenters stated that if NOAA and EPA's proposed finding that Oregon has failed to submit a fully approvable coastal nonpoint program stands, Oregon would lose $4 million a year in federal funding.

Source: 1-C, 14-C, 43-A

Response: NOAA and EPA would like to correct this statement. Each year, beginning with federal FY 2015, Oregon fails to submit an approvable program, the state is subject to lose 30 percent of its allocations under Section 306 of the CZMA and Section 319 of the Clean Water Act for each year that state lacks a fully approvable coastal nonpoint program. For FY 2015, Oregon's total allocation under these two programs is only about $*** in federal funding. Therefore, the state would loose a total of of $*** for $** for CZMA Section 306 and $** for CWA Section 319).

III. AUTHORITIES UNDER THE COASTAL ZONE ACT REAUTHORIAZATION AMENDMENTS (CZARA)

A. Suitability of Voluntary Approaches Backed By Enforceable Authorities

Comment: Several commenters noted that CZARA requires coastal states to have enforceable mechanisms for each management measure. They were not satisfied with the voluntary approaches Oregon was using to address many CZARA management measure requirements. They noted that the voluntary approaches were not being adhered to and that Oregon was not using its back-up authority to enforce and ensure implementation of the CZARA management measures, when needed. A few commenters also noted that Oregon had not described the link between the enforcement agency and implementing agency and the process the agencies will use to take enforcement action when voluntary approaches are not adequate to protect water quality. Another commenter noted that voluntary approaches will not work and that the state needed to adopt approaches that could be enforced directly.

Source: 15-C, 15-D, 16-A, 28-E, 30-O, 46-H, 49-J

Response: States must have enforceable policies and mechanisms to implement the CZARA management measures (see Section 306(d)(16) of the Coastal Zone Management Act). As the NOAA and EPA January 1993 *Coastal Nonpoint Pollution Control Program Development and Approval Guidance* states, "these enforceable policies and mechanisms may be state or local regulatory controls, and/or non-regulatory incentive programs combined with state enforcement authority." Therefore, voluntary, incentive-based programs are acceptable approaches for meeting the CZARA management measure requirements as long as the state has demonstrated it has adequate back-up authority to ensure implementation of the CZARA managements, when necessary.

For coastal nonpoint program approval, CZARA requires NOAA and EPA to assess whether or not the state "provides for the implementation" of 6217(g) management measures (Section 6217(b)). To do this,

NOAA and EPA examine whether the state has processes in place that are backed by enforceable policies and mechanisms to implement the 6217(g) management measures. In approving a state's coastal nonpoint program, NOAA and EPA cannot consider how well those processes, including voluntary ones, are working or being enforced; rather, we require the state to provide the following:

1. a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary;
2. a description of the voluntary or incentive-based programs, including the methods for tracking and evaluating those programs, the states will use to encourage implementation of the management measures; and
3. a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing enforcement authorities where necessary.

(See *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990* and *Enforceable Policies and Mechanisms for State Coastal Nonpoint Programs*.)[4]

Program implementation, and evaluation of the effectiveness of that implementation, occurs after coastal nonpoint program approval. Section 6217(c)(2) of CZARA calls on states to implement their approved programs through changes to their nonpoint source management plan, approved under Section 319 of the Clean Water Act, and through changes to its coastal zone management program, developed under Section 306 of the Coastal Zone Management Act. Therefore, NOAA and EPA evaluate how well a state is implementing its coastal nonpoint program through routine assessment mechanisms for the state's Nonpoint Source Management Program and Coastal Management Program.

Contrary to a few commenters, the federal agencies believe the state has sufficiently demonstrated the link between implementing and enforcing agencies as well as a commitment to use that authority for the new development and onsite sewage disposal system management measures . However, NOAA and EPA agree with the commenter that the state has not met all the requirements for relying on voluntary programs, backed by enforceable authorities, to address its conditions related to additional management measures for forestry. The rationales for those conditions in the final decision document on Oregon's Coastal Nonpoint Program explain why NOAA and EPA have made those findings.

B. Federal Government Taking Over Oregon's Coastal Nonpoint Program

Comment: One commenter noted that NOAA and EPA have an obligation to step in for Oregon and take over its coastal nonpoint pollution control program since the state lacks the will to address its polluted runoff issues.

Source: 55-C

Response: Unlike some of the EPA water quality programs under the Clean Water Act, such as the National Pollutant Discharge Elimination System (NPDES) Program, CZARA provides for exclusive state and local decision-making regarding the specific land-use practices that will be used to meet the coastal

[4] Both guidance documents are available at http://coastalmanagement.noaa.gov/nonpoint/guide.html.

nonpoint program management measures. The Act does not provide NOAA or EPA with the authority to take over, or implement, a state's coastal nonpoint program if the state fails to act.

C. Oregon Needs More Time to Develop Its Coastal Nonpoint Program

Comment: A few commenters stated that NOAA and EPA should give Oregon additional time to develop a fully approvable coastal nonpoint program. They noted that developing a program and addressing the remaining conditions NOAA and EPA placed on the state's program is very challenging and that the state has made significant progress since gaining conditional approval. They also noted that the state is continuing to make additional improvements, such as the current rulemaking process by the Oregon Board of Forestry to achieve better riparian protection for fish-bearing streams, but that the state needs more time before the new rule is adopted.

A few other commenters noted that Oregon has had plenty of time since receiving conditional approval for its coastal nonpoint program in 1998 and that water quality is no better now than it was 16 years ago.

Source: 14-D, 33-C, 28-F

Response: NOAA and EPA have already provided Oregon sufficient time to develop a fully approvable coastal nonpoint program. Per a settlement agreement with the Northwest Environmental Advocates, the federal agencies must make a final decision by May 15, 2014, (subsequently extended to January 30, 2015, by mutual agreement of the settlement agreement parties), regarding whether or not Oregon has failed to submit an approved (without conditions) coastal nonpoint program.

D. CZARA Requires State to Address Issues Outside of Its Control

Comment: One commenter disagreed with the Coastal Nonpoint Program regarding its requirement that states have to meet all CZARA management measures. They noted that some measures, such as onsite sewage disposal systems, are often addressed at the local level, and are therefore, outside of the state's jurisdiction.

Source: 10-B

Response: NOAA and EPA disagree with the commenter that states should not be required to meet the full suite of management measures in the 6217(g) guidance. The CZARA statute requires all coastal states participating in the National Coastal Zone Management Program to develop coastal nonpoint programs that "provide for the implementation, at a minimum, of management measures in conformity with the guidance published under subsection (g), to protect coastal waters…" (See Section 6217 (b)). The 1993 guidance EPA developed to comply with subsection (g), *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, outlines two management measures related to new and existing OSDS that states must address.

E. With regard to the two OSDS management measures, all coastal states have exercised statewide authority to regulate many aspects of OSDS, such as siting requirements and what qualifications are needed to inspect OSDS. NOAA and EPA appreciate that many states have been reluctant to require inspections of OSDS at the state level, but that should not be confused with an inherent limitation of state powers. From a practical standpoint, NOAA and EPA recognize that local governments often play a significant role in managing OSDS, and have therefore accepted a

variety of approaches for meeting the OSDS management measures, as well as other measures, including those that have relied on a mixture of state and local-level authorities, local efforts with sufficient geographic coverage, or state-led voluntary approaches backed by enforceable authorities. NOAA and EPA Holding Oregon to a Higher Standard

Comment: One commenter stated that NOAA and EPA were holding Oregon to a higher standard than other states. Raising the approval threshold for Oregon compared to other states was unfair to Oregon. NOAA and EPA should focus on helping Oregon meet the previously established minimum standards for other state coastal nonpoint programs rather than requiring Oregon to meet a higher bar.

Source: 10-A

Response: NOAA and EPA have not been provided evidence that Oregon is being held to a higher standard than other states and has implemented processes to ensure that has not happened. The CZARA statutory requirements and guidance that the federal agencies use to evaluate Oregon's program are the same that is used to evaluate the approvability of every other states' program. Oregon, along with Washington and California, did receive conditions placed on their programs requiring the states to develop additional management measures for forestry that went beyond the basic CZARA 6217(g) forestry management measures. This was done in recognition of the need for the protection of endangered salmon species; the more stringent water quality requirements for salmon; and the significance of timber harvesting impacts across the Pacific Northwest states. Even though Oregon, Washington, and California had programs in place to satisfy the standard suite of 6217(g) forestry management measures, impacts to salmon and salmon habitat were still occurring due to forestry activities, so additional management measures for forestry were needed.

Oregon, however, is unique in one regard: it is the only state where NOAA and EPA have been sued over the agencies' ability to conditionally approve a state's coastal nonpoint program. That lawsuit was settled and EPA and NOAA entered into a settlement agreement with the plaintiff which requires NOAA and EPA to meet certain deadlines that do not apply to other states. The settlement agreement requires EPA and NOAA to make a final decision on the approvability of Oregon's program by May 15, 2014 (extended to January 30, 2015 by mutual agreement between the parties of the settlement agreement).

F. Need to Take a Tailored Approach to NPS Control

Comment: A few commenters were concerned that NOAA and EPA were applying a one-size-fits all approach to addressing nonpoint source pollution in Oregon by requiring the state to meet specific national management measures. They felt that a more tailored approach that considers Oregon's specific circumstances would be more appropriate.

Source: 8-C, 10-E

Response: By its nature, CZARA gives states great deference to develop programs that are consistent with the broad national 6217(g) management measure requirements, yet are tailored to meet a state's specific circumstances. Section 6217 does not provide NOAA or EPA with authority to require states or local governments to take specific actions to address coastal nonpoint source pollution. Rather, NOAA and EPA work with the state to find the best approach for each state that is consistent with the overarching CZARA requirements.

As required by section 6217 (g), in 1993 EPA published *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. The guidance specifies 56 management measures that form the core requirements of a state's coastal nonpoint program. While the guidance establishes baseline standards for addressing broad categories and sources of nonpoint source pollutants, there are many different approaches that states such as Oregon can take, or have taken, to be consistent with the 6217(g) management measure requirements. For each management measure, the guidance provides examples of a variety of different things states to could do to satisfy the requirements for the management measure. Further, to date, 22 states have received full approval of their coastal nonpoint pollution control programs developed under CZARA, and the approval documents publically available on NOAA's coastal nonpoint program website demonstrate an impressive variety of state-specific approaches.

While NOAA and EPA have provided Oregon with various recommended approaches to meet the 6217(g) management measures built around Oregon's own approaches for controlling coastal nonpoint pollution, decisions regarding how to expand these approaches to meet the management measures rests with the state.

G. Coastal Nonpoint Program Needs to Address Climate Change

Comment: One commenter noted that Oregon's Coastal Nonpoint Program needs to address climate change; water shortages and toxins will become even more pressing issues as the climate continues to change.

Source: 50-A

Response: Climate change is an important issue facing coastal states and can have an impact on coastal water quality. NOAA and EPA take climate change very seriously and are involved in a number of initiatives to help states and other entities become more resilient to climate change. For example through the National Coastal Zone Management Program NOAA has been providing financial and technical assistance to Oregon to encourage local governments to incorporate hazards and climate change considerations into their local comprehensive plans. Specifically, NOAA and Oregon have been working with local governments to plan for and reduce exposure to climate-related natural hazards in Oregon's coastal zone. Ex. 5 - Deliberative

Ex. 5 - Deliberative

However, CZARA itself does not have any specific requirements for states to address climate change through their coastal nonpoint programs. When approving state coastal nonpoint programs, NOAA and EPA must make sure each state satisfies the requirements laid out in the 1993 *Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution in Coastal Waters,* developed pursuant to Section 6217(g). The 1993 guidance only contains a few mentions of climate change in the discussion of several suggested best management practices a state could employ to implement the management measure. The discussion for the new onsite sewage disposal system management measure mentions that the rate of sea level rise should be considered when siting onsite sewage disposal systems and the discussion for the stream bank and shoreline erosion management measure notes that setback regulations should recognize that special features of the streambank or shoreline, may change, providing an example of beaches and wetlands that are expected to migrate landward due to rising

water levels as a result of global warming. However, none of these are required elements for a state's coastal nonpoint program.

H. Proposed Decision Exceeds NOAA and EPA's Authority

Comment: One commenter noted that the federal government places too many regulations on the states, private property owners, and individuals and that NOAA and EPA exceeded the limits defined by the U.S. Constitution. The commenter suggested that Congress should remove the budgets for NOAA and EPA and return those funds back to the state.

Source: 29-A

Response: Congress created the Coastal Nonpoint Program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990. In doing so, Congress charged NOAA and EPA to jointly administer the program. In finding that Oregon has failed to submit an approvable coastal program, NOAA and EPA are simply carrying out their administrative responsibilities under CZARA.

I. The Public Comment Period Is Not Needed

Comment: One commenter questioned why NOAA and EPA requested public comment on their proposed decision. They noted public comment was not needed as long as the federal agencies' decision and analysis is based on established criteria and valid science, which they believed to be the case.

Source: 15-B

Response: NOAA and EPA appreciate the commenter's assessment that the federal agencies' decision and analysis is based on established criteria and valid science. However, public comment is an essential part of the decision making process for Oregon's Coastal Nonpoint Program. CZARA notes that "opportunities for public participation in all aspects of the program, including the use of public notices and opportunities for comment…" shall be incorporated into state coastal management programs. Therefore, NOAA and EPA would be remiss if the federal agencies did not consider public input when making a decision about whether or not the state has failed to submit an approvable coastal nonpoint program.

IV. GENERAL—WATER QUALITY, MONITORING, AND ENFORCEMENT

A. Status of Oregon Coastal Water Quality Should Inform NOAA and EPA Decision

Comment: Many commenters expressed the need for Oregon to do more to improve coastal water quality and protect designated uses. They believe the fact that many coastal water quality problems in the state still exist demonstrates that Oregon's existing programs to control coastal nonpoint source pollution are inadequate and that the state needs to do more to strengthen its coastal nonpoint program. Specific concerns cited included failure to meet water quality standards, numerous TMDLs for temperature, sediment, and/or toxics, impaired drinking water, and recent federal species listings under the Endangered Species Act for salmon, salmon habitat, amphibians, and wildlife. For example, several commenters cited the recent federal listings for Southern Oregon-Northern California Coast coho salmon as illustrative of how salmon populations and habitat have continued to decline, due, in part, to human-related water quality and habitat impairments. Commenters specifically called out activities from timber harvesting, agriculture, and urban development as a reason for these impairments.

Commenters also stated that Oregon fails to identify land uses causing or threatening water quality because the state ignores technical information available about land uses that consistently cause or contribute to violations of water quality standards in coastal watersheds.

Several other commenters noted that recent improvements in Oregon's coastal water quality and salmon runs demonstrate that the state's coastal nonpoint pollution control program is effective. One commenter stated that Oregon streams are among the cleanest in the country and provide good water for aquaculture. A few other commenters noted the good work and water quality and habitat improvements made by watershed groups, Oregon Watershed Enhancement Board (OWEB), Soil and Water Conservation Districts (SWCDs), and the voluntary efforts the timber industry and farmers (cattlemen) have implemented on their own. For example, one commenter cited an Oregon Department of Fish and Wildlife study that shows many out-migrating and returning salmon to Tillamook State forest land and described how collaborative restoration efforts of federal, state, county and private citizen groups have effectively worked together to improve the Tillamook watershed. Another commenter stated there was too much focus on the need to see water quality improvements; rather, given the increase in human population and other development pressures in recent decades, even maintaining water quality levels should be considered a success.

Source: 1-A, 1-B, 5-B, 8-A, 10-C, 11-A, 14-B, 15-E, 19-B, 19-E, 20-A, 20-D, 22-D, 25-A, 26-A, 28-F, 30-B, 30-I, 30-O, 31-B, 35-A, 35-B, 35-C, 39-A, 42-B, 42-C, 42-I, 43-F, 44-B, 48-C, 56-B, 57-GG, 57-NN, 57-VV, 82-C, 82-E, 83-C, 83-D

Response: NOAA and EPA recognize that the achievements of voluntary programs, such as OWEB and SWCDs, play an important role in nonpoint source management and improving water quality in coastal Oregon. Oregon does have some noteworthy successes, such as returning salmon populations to the Tillamook watershed. However, as other commenters pointed out and the state's recent 303(d) list reflects, Oregon still grapples with impaired waterbodies that are not achieving water quality standards or supporting designated uses such as domestic water supply (drinking water) and fish and aquatic life (i.e., salmon).

Although NOAA and EPA have found that Oregon does not yet have a fully approvable coastal nonpoint Program and must do more to reduce polluted runoff, specifically related to forestry (see final decision rationale), this finding is not driven by the current status of coastal water quality in Oregon. CZARA does not require states to have clean water throughout their coastal nonpoint program management areas before receiving full approval for their coastal nonpoint programs. Rather, CZARA employs an adaptive management approach. States such as Oregon must have processes in place to implement the 6217(g) management measures as well as to identify and implement additional management measures when needed to achieve water quality standards and to protect designated uses (see Section 6217(b)).

The legislative history (floor statement of Rep. Gerry Studds, House sponsor of section 6217) indicates that implementation of 6217(g) management measures is "intentionally divorced from identified water quality problems because of the enormous difficulty of establishing cause and effect linkages between particular land use activities and specific water quality problems." Therefore, as noted above, when deciding whether or not to fully approve a state's coastal nonpoint program, NOAA and EPA assess whether or not a state has appropriate technology-based management measures in place, not whether the approaches effectively achieve water quality standards and the current status of the state's water quality.

B. Need Improved Water Quality Monitoring

Note: See also specific comments related to Agriculture-Monitoring and Tracking, Pesticides-Monitoring and Tracking, and Forestry-Pesticides.

Comment: Several commenters stated concern about the adequacy of Oregon's water quality monitoring programs, especially related to monitoring after aerial application of pesticides and herbicides on forest lands. Commenters noted that Oregon does not have monitoring programs in place to adequately assess whether or not pollution controls are achieving their goals and protecting water quality. Therefore, it is difficult for the state to determine if and when additional management measures are needed as CZARA requires.

Commenters suggested several different monitoring approaches Oregon needed to require and implement in order to adequately protect water quality. These included: requiring turbidity monitoring of streams during and after rainstorms and taking enforcement action when excess turbidity is found; requiring recurrent road surface condition monitoring; requiring more frequent inspections of drinking water, especially when pesticide spraying occurs; and improving upon a recently developed strategy for determining agricultural landowners' compliance with water quality rules.

Several other commenters stated Oregon's monitoring and tracking programs were adequate and touted the State's greater focus on water quality monitoring over the past few years.

Source: 2-A, 30-R, 42-G, 42-H, 46-H, 49-I, 57-BB, 71-??, 84-??.

Response: NOAA and EPA recognize commenters are concerned about the adequacy of Oregon's water quality monitoring programs and that the existing monitoring efforts are not robust enough to observe potential impacts from pesticide application and other land uses and to determine when and if additional management measures are needed. The federal agencies also recognize Oregon's efforts over the past few years to improve its water quality monitoring efforts, such as the state's Enterprise Monitoring Initiative, and strongly encourage the state to make continued improvements on monitoring and tracking of coastal nonpoint source pollution and best management practice implementation within the coastal nonpoint management area.

However, NOAA and EPA did not propose a decision on the approvability of the overall monitoring and tracking elements of Oregon's Coastal Nonpoint Program and did not solicit comment on this issue at this time. The public will have an opportunity to comment on this aspect of Oregon's program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program. (See the appropriate Forestry and Agriculture sections in this document for responses to specific comments related to the monitoring and tracking efforts related to Oregon's forestry and agriculture programs.)

C. Enforcement

Comment: One commenter noted that Oregon fails to systematically address water quality standard violations caused by excess sedimentation.

Source: 57-UU

Response: CZARA requires state coastal nonpoint programs need to "provide for the implementation" of the 6217(g) management measures (Section 6217(b)). Therefore, when evaluating whether or not the state has satisfied its CZARA requirements, NOAA and EPA do not consider how well a state is

implementing or enforcing its laws and programs that comprise its coastal nonpoint program (or whether or not these programs are meeting water quality standards). For coastal nonpoint program approval, NOAA and EPA only consider whether or not a state has programs and processes in place to meet the 6217(g) management measure requirements.

Program implementation and evaluation of the effectiveness of that implementation occur after program approval. Section 6217(c)(2) of CZARA calls on states to implement their approved programs through changes to their nonpoint source management plan, approved under Section 319 of the Clean Water Act, and through changes to its coastal zone management program, developed under Section 306 of the Coastal Zone Management Act. Therefore, NOAA and EPA evaluate how well a state is implementing its coastal nonpoint program through routine assessment mechanisms for the state's Nonpoint Source Management Program and Coastal Management Program.

States are required to update their nonpoint source management plans every 5 years and submit to EPA for approval. Oregon recently finalized its latest plan on _____. EPA reviews the progress that each state is making in implementing its plan annuallyPrior to approving funding recommendations for the award of section 319 funds, the Regions completes the review covering the prior year to determine the state has made satisfactory progress on implementing its NPS management program. EPA's checklist is designed to document the extent to which each state meets foundational aspects of program progress and CWA section 319 grant management requirements, including those specified in binding section 319 grant guidelines available at www.epa.gov/nps/319 and can be found in EPA's "Nonpoint Source Program and Grants Guidelines for States and Territories" on page 70 (see http://water.epa.gov/polwaste/nps/upload/319-guidelines-fy14.pdf).
The CZMA calls on NOAA to conduct routine evaluations of state coastal management programs. During these evaluations, NOAA assesses how well states are implementing their approved coastal management programs, administering federal grant funding under the program, and achieving the goals of the National Coastal Zone Management Program, including "the management of coastal development to improve, safeguard, and restore the quality of coastal waters, and to protect natural resources and existing uses of those waters" (See CZMA Section 303(2)(c)).

Also, as stated in the introductory chapter of the 6217(g) guidance, *Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution in Coastal Waters,* the legislative history (floor statement of Rep. Gerry Studds, House sponsor of section 6217) acknowledges that the management measures are based on technical and economic achievability rather than achieving particular water quality standards. The legislative history indicates that implementation of management measures was "intentionally divorced from identified water quality problems because of the enormous difficulty of establishing cause and effect linkages between particular land use activities and specific water quality problems." Therefore, as noted above, under the Coastal Nonpoint Program, NOAA and EPA assess whether or not a state has appropriate technology-based management measures in place, not whether the approaches effectively achieve water quality standards.

If, after implementing the technology-based the 6217(g) management measures, water quality impairments are still occurring, CZARA employs an adaptive approach. The Act requires states to provide for the implementation of additional management measures within identified areas to address land uses that are either currently causing water quality impairments or where reasonably foreseeable new or expanding land uses could threaten coastal water quality (Section 6217 (b)(3)).

V. CRITICAL COASTAL AREAS AND ADDITIONAL MANAGEMENT MEASURES

A. Process for Identifying Critical Coastal Areas and Additional Management Measures is Not Effective

Comment: One commenter states that Oregon's process for identifying critical coastal areas and the need for additional management measures, which relies largely on the state's Clean Water Act 303d listing process for impaired waters and TMDL program, is flawed in several ways. Specifically, the commenter believes Oregon's Clean Water Act 303d listing process is not effective. The state fails to meet the 303d list regulatory requirements to "assemble and evaluate all existing and readily available water quality related data and information to develop the list" and the state does not use nonpoint source assessments to develop its 303d lists. The commenter also states that Oregon ignores a variety of technical information available to help identify land uses that consistently cause or contribute to water quality standard violations. In addition, the commenter noted that Oregon does not use TMDLs to identify critical coastal areas and assess where existing CZARA management measures are not adequate for meeting water quality standards, as required for CZARA approval. The commenter also notes that the associated TMDL water quality management plans do not support an effective coastal nonpoint program. For example, despite the numerous temperature TMDLs that have been developed in Oregon's coastal watershed, they assert that load allocations have not been used to determine minimum riparian buffer width, height, or density to achieve the load allocation.

Source: 57-KK, 57-LL, 57-MM, 57-NN, 57-QQ, 57-RR, 57-SS, 57-TT

Response: NOAA and EPA did not propose a decision on the approvability of Oregon's process for identifying critical coastal areas and additional management measures and did not solicit comment on this issue at this time. The public will have an opportunity to comment on this aspect of Oregon's program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program.

B. NOAA and EPA Lack Authority to Require Additional Management Measures

Comment: A few commenters stated NOAA and EPA do not have the authority to require Oregon to develop additional management measures that go beyond the original management measures in the CZARA guidance. They state that the programmatic guidance for the Coastal Nonpoint Program calls on the state, not NOAA and EPA, to identify additional management measures, if necessary, to achieve and maintain water quality standards. They assert the guidance further states that state is to identify additional management measures only within state-designated critical coastal areas to address state-identified land uses that may cause or contribute to water quality degradation.

Other commenters noted that CZARA requires Oregon to demonstrate that it has additional management measures in place to meet water quality standards and protect designated uses. The commenters noted that Oregon has not met this requirement since water quality standards are still not being met and designated uses are not being protected. They are supportive of placing additional management measure requirements on Oregon's coastal nonpoint program and suggested specific measures or nonpoint source issues the additional measures needed to address (see specific comments below).

Source: 15-E, 28-E, 30-B, 30-O, 57-CC, 71-E, 71-I, 71-H

Response: NOAA and EPA disagree with the commenters that claim that NOAA and EPA lack the authority to require Oregon to adopt additional management measures. While the guidance may indicate that additional management measures should be state-driven, it is only guidance. The statutory language provides the controlling authority. The additional management measures language in CZARA reads:

> *"Each State program …shall also contain the following: (3) Management measures. The implementation and continuing revision from time to time of additional management measures applicable to the land uses and areas identified pursuant to paragraphs (1) and (2) that are necessary to achieve and maintain applicable water quality standards under section 303 of the Federal Water Pollution Control Act (33 U.S.D. 1313) and protect designated uses." (Section 6217 (b))*

It does not specify who (the state and/or federal agencies) has the authority for the identification of additional management measures nor does it specifically preclude NOAA and EPA from doing so. While Section 6217(b)(1)(A), referenced by the additional management measure paragraph, does note that states shall determine where coastal waters are failing to "attain or maintain applicable water quality standards or protect designated uses" through their water quality planning processes. However, that paragraph who is allowed (or not allowed) to identify land uses that "may cause or contribute to a degradation".

Looking at the legislative history for CZARA, the floor discussion of Rep. Studds does indicate that states have a prominent role in identifying additional management measures [citation??]. In earlier drafts of the legislation, this intent was very clear as the language clearly specified that identifying additional management measures was the role of the states: "[cite specific language here.]" However, the final version of CZARA does not have this language. Therefore by removing the state-specific language, we can conclude the Congress intended that states, along with NOAA and EPA, could have the ability to identify additional management measures. Regarding the commenters that are supportive of NOAA and EPA placing additional management measure requirements on Oregon's coastal nonpoint program because water quality standards are still not being met, NOAA and EPA appreciate their concern and agree Oregon needs to do more to protect water quality (see final decision document).

However, beyond the requirements for additional management measures for forestry that NOAA and EPA placed on Oregon's program during the 1998 conditional approval findings, the federal agencies believe specific additional management measures to address other coastal water quality issues are not needed at this time for CZARA approval. The other CZARA 6217(g) management measures are broad enough to protect water quality, when implemented effectively. For coastal nonpoint program approval purposes, CZARA does not require states to have clean water throughout their coastal nonpoint program management areas or to have additional management measures identified to address all water quality impairments. Rather, states, like Oregon, must have processes in place to identify and implement additional management measures, when needed (i.e., when the existing 6217(g) management measures are not sufficient for achieving water quality standards and protecting designated uses (see Section 6217(b)). This process for identifying additional management measures is what NOAA and EPA will evaluate with the federal agencies are ready to approve Oregon's program.

VI. PESTICIDES AND TOXICS—GENERAL

Note: NOAA and EPA received a variety of comments related to pesticides. Summaries of the general pesticide comments and the federal agencies' responses are provided here. See Agriculture-Pesticides and Forestry-Pesticides for a full discussion of the comments received related to pesticides.

A. Adequacy of Oregon's Coastal Nonpoint Program to Address Pesticides and Other Toxics

Comment: Several commenters noted that Oregon needs to improve how it addresses nonpoint source pollution caused by toxics, including pesticides, herbicides, and superfund contaminants. Commenters specifically noted they believed there was excessive use of toxic chemicals in agriculture and forestry practices. One commenter was also concerned about superfund contamination impacting shellfish harvests.

Commenters expressed their concerns with the ability of Oregon's existing pesticide management program to protect the quality of water in streams and groundwater as well as protect human health and aquatic species and called for more federal oversight. One commenter supported this statement by citing results from a watershed council herbicide study that found that pesticides used along roadsides, agricultural fields, and forestry operations were all evident in Oregon's waterways. They noted that while applicators may have applied the herbicide correctly, the study demonstrates runoff is still occurring, indicating that the state's rules are ineffective at protecting water quality from herbicide application. Several other commenters provided personal accounts of health impacts due to pesticide exposure.

One commenter cited various studies to demonstrate pesticide impacts to human health and the environment from one commonly used herbicide, glyphosate. For example, a few studies in the late 1990s and early 2000s linked exposure to glyphosate to an increased risk of non-Hodgkin lymphoma. Other health effects from exposure to glyphosate described by the commenter included breast cancer, ADD/ADHD, increased risks of late abortion, endocrine disruption, and possible increased risk of multiple myeloma. According to studies from the late 2000s, glyphosate causes altered immune responses in fish, and Roundup, a commonly used glyphosate product, is lethal to amphibians. Other environmental impacts from glyphosate were also described. The commenter contended that these human health and environmental impacts have been attributed to exposure to levels of glyphosate below the EPA set standards. The commenter also stated that studies show adverse health effects of other formulated glyphosate products.

Several commenters also felt the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), coupled with the state's pesticide rules and its Water Quality Pesticide Management Plan, were insufficient to control polluted runoff from pesticide application to Oregon's coastal waters. Some commenters stated that Oregon needs to improve pesticide application restrictions and protections for all classes of streams. One commenter noted that neighboring states have stricter requirements for pesticide use and application. Another commenter cited the lack of additional ODA rules beyond the EPA pesticide labels, which they state have been demonstrated to be inadequate to protect threatened coho.

A few commenters also stated that not only do they believe Oregon has weak pesticide laws but compliance with the existing rules is poor. One commenter asserted that evidence suggested that federal label restrictions for atrazine are not being followed. Other commenters complained about the

state's poor record keeping of pesticide application and inadequate notice of spraying events would occur near their neighborhoods and homes.

Other commenters disagreed. They believed Oregon has adequate pesticide controls in place which are consistent with CZARA 6217(g) requirements. They state that state rules (OAR 629-620-0400) provide for the protection of waters of the state and other resources during chemical application. In addition, applicators are required to follow the FIFRA label requirements and meet additional state requirements such as for when and during what conditions pesticides can be applied, mixed, stored, loaded, and used The commenter also states that under state rules, applicators need to take into account weather conditions such as temperature, wind, and precipitation to protect non-target forest resources. A commenter also noted that the FIFRA labels have undergone significant changes since 1998 on how pesticides can be applied to forests. In addition, they assert that the EPA-approved Oregon Water Quality Pesticide Management Plan provides additional description of the state's approach to pesticide management.

Source: 2-B, 17-C, 27-C, 28-D, 31-D, 32-A, 35-F, 35-G, 38-A, 38-D, 41-A, 46-H, 46-M, 46-N, 49-H, 50-B, 54-G6, 54-B, 54-D, 54-F, 54-H, 54-I, 54-M, 54-N, 54-O, 54-Q, 54-R, 54-S, 55-P, 57-GG, 57-HH, 57-II, 57-ZZ, 57-II3, 70-B, 70-C, 70-I, 71-R, 71-AH, 71-AI, 71-AJ, 71-AK, 72-A, 77-S, 77-T, 81-B, 83-E, 83-M, 85-C, 85-D, 85-E

Response: NOAA and EPA recognize that many Oregonians are concerned about the use of pesticides and toxics in Oregon and the adverse impacts they have to the environment and public health. After carefully considering all comments received, NOAA and EPA find that Oregon does not have sufficient pesticide management programs in place and that the state needs to do more to strengthen these programs to protect coastal water quality and designated uses, specifically in regard to the aerial application of herbicides. (See rationale for additional management measures for forestry in final decision document for further discussion of the federal agencies' rationale for this finding...and ag section??). NOAA and EPA will continue to work with Oregon within our authorities, to improve its pesticide management efforts to ensure coastal water quality, human health, and designated uses are protected.

While some commenters asserted that Oregon was not adequately enforcing its existing pesticide laws and that current label requirements were not being followed, as NOAA and EPA explained in the agencies' response to general comments about the enforcement of coastal nonpoint program elements, how well a state is enforcing or implementing its existing authorities is not something that CZARA considers for the approvability of a state's coastal nonpoint program. (See Section IV.C, Enforcement)

Finally, regarding the expressed concern over superfund contaminants, CZARA does not speak to superfund contaminates. Rather superfund contaminants are more appropriately addressed through the Comprehensive Environmental Response, Compensation, and Liability Act (the Superfund Act).

B. Pesticides—Adequacy of Overall Pesticide Monitoring Efforts

Comment: Several commenters noted the need for Oregon to strengthen its pesticide monitoring efforts. They stated that Oregon did not have a program in place to determine if federal label requirements are being followed, nor did it monitor widely and regularly for pesticide runoff. One commenter noted that while unknown and unmonitored pesticide uses are a problem, unknown and unmonitored health and environmental risks from pesticides are also a significant problem.

Commenters discussed various monitoring programs that are needed in Oregon, including programs to: monitor pesticide use and impacts; assess whether pesticide management practices are sufficiently reducing pollution and improving water quality; monitor for pesticides in the air, which eventually deposit onto surface waters and soils; monitor for pesticides in coastal watersheds; monitor for pesticides in surface and drinking waters more frequently than every three years such as directly following an aerial spray event; and track whether federal label laws are being complied with. One commenter also noted that the Oregon lab that tests for pesticides does not have the capacity to test for glyphosate, a commonly used herbicide.

Another commenter also stated that most pesticide risk assessments are based on old and incomplete data and endpoint evaluations and that these needed to be updated with more current information for a better understanding of the true impact of pesticides and acceptable exposure limits. In addition there was little to no understanding of effects from "inert" ingredients in pesticides. The commenter believed that there needed to be more testing and disclosure of these inert ingredients.

A few commenters also objected to NOAA and EPA's statement in the proposed decision document commended the state's Water Quality Pesticide Management Plan and new pilot pesticide monitoring study. They did not think these programs should be praised as part of Oregon's Coastal Nonpoint Program. The commenters did not believe the state's claim that pesticide monitoring would support an adaptive approach and demonstrate when additional controls are needed. They stated that Oregon conducted very little pesticide monitoring to drive an adaptive approach and that none of the pilot monitoring sites are located in the coastal zone.

While the above commenters were concerned with the minimal pesticide monitoring that occurred in Oregon was not sufficient to reveal the true impact of pesticides on the environment and humans, a few other commenters stated pesticide monitoring was adequate. They contend that monitoring efforts have shown that current pesticide management practices do not result in detrimental impacts. For example, one commenter described a study by Dent and Robben (2000) on fish-bearing streams which found no pesticide contamination at or above 1 ppb in any of the post-spray water samples analyzed. The study concluded that that the current Forest Practices Act and pesticide rules are effective at protecting water quality along Type F (fish-bearing) and Type D (drinking water) streams. However, another commenter that discussed the same study asserted that the study may have underestimated pesticide levels.

Source: 54-E, 54-F, 54-S, 57-ZZ, 57-CF-B, 77-R

Response: NOAA and EPA acknowledge that some studies have not found pesticides at toxic levels. However, as some commenters note, the federal agencies believe Oregon still needs to improve its pesticide monitoring and tracking efforts. The federal agencies have revised the decision document to recommend some specific actions the state could take to improve its pesticide monitoring and tracking efforts such as [insert a few examples but doesn't need to include all]. In addition, based on the comments received, NOAA and EPA have also revised its discussion of Oregon's Water Quality and Pesticide Management Plan and pilot pesticide monitoring studies to more clearly acknowledge some of the weaknesses of the plan and pilot studies. (See additional management measures for forestry rationale in the final decision document).

VII. NEW DEVELOPMENT

Comment: Many commenters agreed with NOAA and EPA's proposed finding that Oregon has failed to fully address CZARA requirements for new development, specifically that the state has not provided a commitment to use its back-up authorities to ensure implementation of the management measure requirements when needed. However, a few commenters did not believe Oregon had an effective program to control stormwater runoff from new development and meet water quality standards. They noted that the state needed to do more than the voluntary program described. For example, one commenter noted that the TMDL Implementation Guidance must require (not recommend) DMAs to follow NPDES Phase II requirements for small MS4s. Another option that was suggested was that NOAA and EPA should require the state to incorporate the CZARA new development management measures into an existing NPDES General Permit or craft a new permit.

Not all commenters were supportive of new regulatory requirements to address the new development management measure. For example, one commenter preferred that the state use its existing authorities and stormwater permits more effectively rather than place additional requirements on small cities and counties. The commenter noted that small cities and counties are not the main source of impairment and often lack the technical expertise and financial resources to meet the new requirements. They suggested the coverage for the 1200C NPDES general permit could be expanded by decreasing the acreage threshold for the permit or using an approach similar to the 1200OCS permit used to address water quality problems in the Columbia Slough.

Source: 11-B, 13-B, 15-G, 34-B, 34-C, 34-D, 80-C

Response:

VII. ONSITE SEWAGE DISPOSAL SYSTEMS

A. Adequacy of Oregon's Programs to Meet CZARA Requirements for OSDS

Comment: Many commenters agreed with NOAA and EPA's proposed finding that Oregon has failed to fully address CZARA requirements for existing onsite sewage disposal systems, specifically ensuring routine inspections. While some commenters were supportive of the state's planned outreach efforts to promote voluntary inspections, they agreed with NOAA and EPA that Oregon does not have a tracking program in place to assess the effectiveness of its voluntary program nor has the state demonstrated a commitment to use its back-up enforcement authority to ensure inspections, when needed.

Other commenters were not supportive of Oregon's voluntary approach at all. They felt the state needed to require routine inspections and have more direct enforcement authorities. They noted Oregon's OSDS management program was not sufficient for meeting water quality standards and that enforcement action was minimal for existing leaking septic systems. One commenter noted that Dunes City passed an OSDS ordinance to require routine inspections because previous voluntary approaches did not work. Another commenter was concerned about several communities (Lane County and the City of Florence) allowing septic systems to be cited near lakes.

Source: 11-B, 12-B, 13-B, 15-G, 34-B, 34-5, 35-E, 48-A, 48-K

Response:

B. More Needed to Improve OSDS Management

Comment: A few commenters noted specific actions Oregon needs to take before NOAA and EPA approve the state's programs for meeting the OSDS management measure. Actions include: siting OSDS in locations where they are properly separated from groundwater; restricting system density to reduce nitrate input to groundwater; ensure proper sizing of the system to minimize concentrations of contaminants and prevent hydraulic overloading; requiring mandatory inspections every 3-5 years or at the time of property transfer; requiring mandatory pumping after each inspection whenever needed; establishing a step-by-step program for the state to help homeowners with grants and low-cost loans that need support for pumping or replacing failing systems; and establishing explicit enforcement mechanisms.

Source: 34-E, 48-J, 78-E

Response:

C. Concerned with Sewage Discharge to Waterways During Rain Events

Comment: One commenter noted that some communities, such as Myrtle Point and Powers, discharge sewage during rain events, preventing shellfish harvest.

Source: 17-B

Response:

IX. FORESTRY

A. General Effectiveness of Existing Forestry Programs and Adequacy for Meeting CZARA Requirements

Comment: The majority of commenters agreed with NOAA and EPA's proposed decision that Oregon's existing forest practices are not sufficient for meeting the CZARA requirements and that additional management measures for forestry are needed. They argued that current land use laws and the Oregon Forest Practices Act (FPA) and rules do not adequately prevent impacts to water quality or designated beneficial uses (e.g., fish spawning, migration, etc.) from forestry activities. (See additional forestry comments for more specific concerns raised about various elements of Oregon's forestry program.)

Furthermore, several commenters disagreed with language in the FPA that states that compliance with the forest practices rules equates to compliance with water quality standards; the commenters did not believe the FPA practices were sufficient to achieve and maintain water quality standards. Commenters also stated that the Oregon Department of Environmental Quality has failed to use its authority to address these inconsistencies between the FPA practices and water quality standards. A commenter also asserted that NOAA and EPA failed to use their authority under CZARA to address the issue.

Other commenters were concerned that FPA enforcement actions only occur after water quality damage has occurred. A commenter contended that the lack of political will within the state to address water quality problems along with state tax benefits to the timber industry contribute to the lack of

resources state agencies have to improve degraded water quality. Commenters recommended NOAA and EPA look at various studies that demonstrate the adverse impacts of the forestry industry on water quality and designated uses in Oregon (see pg. 10-11 of public comment #58 and the attachments to public comment #57 as examples)[5].

Conversely, a few commenters disagreed with NOAA and EPA's proposed decision and believed Oregon does have programs in place to meet the CZARA forestry requirements and that no additional management measures are needed. For example, commenters stated the FPA "establishes a dynamic program that responds promptly and deliberately to environmental issues as they arise" and requires that water resources, including drinking water, be maintained. They also stated that the FPA requires that best management practices be established to insure maintenance of water quality standards. This FPA provision adheres to the CZARA requirement that additional management measures be established to maintain applicable water quality standards. The commenters further state that the FPA already requires best management practice monitoring, including for pesticide use and landslides, and that the state has proven processes in place to identify and implement additional management measures for forestry, when needed. They highlight that past monitoring efforts have already resulted in improvements to the forest practices rules, such as strengthening protections for land-slide prone areas when public safety is at risk and making improvements to road management procedures.

In addition, one commenter argued that EPA and NOAA have failed to show that Oregon's forest practices rules do not meet water quality and beneficial use objectives; on the contrary, the commenter asserts a "large body of science" demonstrates that Oregon forest practices have a "neutral to positive" effect on aquatic life. They state that making a decision that is not backed by solid science would be arbitrary; such a decision would not stand up to judicial scrutiny.

Source: 35-I, 57-D, 57-E, 57-F, 57-G, 57-H, 57-S, 57-V, 57-W, 58-H, 67-E, 67-G, 70-C, 75-E, 75-G, 77-F, 77-G, 77-M, 77-Q, 79-B, 79-C

Response: As reflected in the final decision document, NOAA and EPA continue to find that Oregon has not satisfied the condition placed on its coastal nonpoint program to "identify and begin applying additional management measures where water quality impairments and degradation of beneficial uses attributable to forestry exist despite implementation of the (g) measures." In its 1998 conditional approval findings, NOAA and EPA identified specific areas where existing practices under Oregon's FPA and rules should be strengthened to attain water quality standards and fully support beneficial uses including: better protections for medium and small fish-bearing and non-fish bearing streams, including intermittent streams; better protections for areas at high-risk to for landslides; better management and maintenance of forestry roads, including so-called "legacy" roads; and better protections for non-fish bearing streams during the aerial application of herbicides.[6] Based on the comments received, NOAA and EPA have revised the final decision rationale to more clearly reference scientific studies that support the need for these additional management measures in the state.

NOAA and EPA recognize that the FPA has language stating that water resources and drinking water must be protected and that the state's monitoring programs for forestry practices that have resulted in

[5] http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/publicComments.html

[6] See conditional approval findings for Oregon's Coastal Nonpoint Program: http://coastalmanagement.noaa.gov/nonpoint/docs/findor.txt

noteworthy improvements to its FPA rules. The federal agencies have included language in the decision document that acknowledges these FPA rule improvements, such as amending the FPA rules to require the identification of landslide hazard areas in timber harvesting plans and road construction and place certain restrictions on harvest and road activities within these designated high-risk landslide areas for public safety. As the final decision rationale more fully explains, while the state should be commended for these positive achievements, these actions are not enough to satisfy the additional management measure for forestry condition. For example, existing science, including studies like the RipStream Analysis carried out by ODF, show that current FPA riparian protection practices are not sufficient to achieve water quality standards. Therefore, more improvements are needed to adopt additional management measures to achieve and maintain water quality standards and protect designated as CZARA requires under Section 6217(b)(3).

NOAA and EPA disagree with the commenter that believed NOAA and EPA are not using their authority under CZARA to ensure forest practices in Oregon achieve and maintain water quality standards. On the contrary, NOAA and EPA's act to find that Oregon has failed to submit a fully approvable coastal nonpoint program, based on the fact that the state has not satisfied its additional management measures for forestry condition, demonstrates that NOAA and EPA are using their authority under CZARA to bring about improvements to Oregon's forest practices.

According to state rule, the best management practices the Board of Forestry (Board) adopts are deemed sufficient for achieving and maintaining water quality standards (ORS 468B.110(2), ORS 527.756, and ORS 527.770). NOAA and EPA recognize that these provisions present some challenges to ODEQ in enforcing water quality standards on forestlands. However, ODEQ does have tools it can use to remove the "best management practices shield" (ORS 527.770) that will allow it to take enforcement action when forestry activities are degrading water quality. The Environmental Quality Commission (EQC), the rule making body for ODEQ, can petition the Board if it believes the FPA rules are not adequate for achieving water quality standards. The Board (with EQC concurrence) can either terminate the review or proceed with rulemaking. If the Board fails to complete its rulemaking in the two-year time period or decides that the revisions are not needed, the "best management practices shield" is lifted. During the rulemaking process, the EQC can also request the Board employ interim steps "to prevent significant damage to beneficial uses;" if requested, the Board needs to take action. NOAA and EPA strongly encourage ODEQ to use these authorities to address forestry water quality impairments, when needed.

Finally, NOAA and EPA cannot comment on what contributes to the believed lack of resources in Oregon to address water quality issues and concerns with how the FPA is being enforced. In reviewing the adequacy of the state's coastal nonpoint program, the federal agencies look at what processes the state has in place to implement the CZARA 6217(g) management measures and if the state has satisfied the conditions placed on its program. Per NOAA and EPA's authority under CZARA, the federal agencies cannot consider potential implementation or enforcement issues or what may contribute to a potential lack of resources to sufficiently implement these programs. (See response to Comment IV.C (Enforcement) for a more in-depth discussion of the enforcement issue).

B. Importance of Forestry Riparian Management

Comment: Many commenters were generally in agreement about the importance of forestry riparian management for addressing erosion and water quality problems they believed were exasperated by lack of adequate riparian buffers along coastal watersheds. One commenter expressed the concern that

"large companies with large land holdings" were conducting "dangerous activities" that impact people, wildlife habitats and water quality in the state. The commenter added that such activities required oversight from laws that limit pollution being released into waterways. Another commenter pointed out that habitat and water quality indicators overlap and contended that there was a need to fully examine how physical habitat and water quality are interconnected. The commenter added that because "streams form a linked network, water quality and stream health is closely associated with the intensity and cumulative extent of forest management activities near streams of all sizes, in all parts of the network", and noted that "approximately 55% of the 27,000 stream miles examined in Oregon were either severely or moderately impacted by nonpoint source pollution."

The commenters touted a variety of benefits to riparian buffers. A few commenters emphasized the negative impacts that occur due to clear cutting and not providing sufficient riparian buffers, such as increased soil erosion, and lack of pesticide filtration. For example, one commenter sited degraded lakes within the Sutton, Mercer, Woahink, and Siltcoos watersheds where clear cutting to the shores has occurred. Other commenters discussed the effects of winter blow downs where "strong coastal winds accelerate through the clear cuts and abruptly hit the buffers with great force." Narrow, inadequate buffers are not able to stand up to these winds, and trees are knocked down, leaving nothing to hold the soil in place which ultimately runoffs and impacts the creeks.

Commenters also pointed out the importance of riparian buffers in maintaining large woody debris (LWD). They stated large wood recruitment is essential to maintain biological and hydrological processes in streams (e.g., sediment retention and transport, habitat formation, substrate for biological activity) and is critical for salmonid populations. A commenter described how in a natural stream/riparian system, large wood is recruited from areas adjacent to streams and upslope, including unstable areas that move down toward streams. Moreover, the commenter noted that large wood was not just needed instream but also adjacent to the stream and discussed the role of conifers and the importance of regeneration rates of conifers in the future. Another commenter noted that older forests and intact riparian areas, as well as large shifting beaver complexes have contributed to greater amounts of LWD in streams which has helped to maintain floodplains, habitat complexity, hyporheic flow, and hydrologic stability. However, the commenter explained, management of coastal lands has resulted in chronic and persistent disturbance and bare riparian areas along the lower reaches of coastal streams. This has led to low LWD, unstable banks, and high energy channels.

Other commenters explained the importance of riparian buffers for controlling sedimentation into streams. A commenter pointed out that if riparian buffers are not required for non-fish bearing streams (headwaters), those streams become a source of excess sediment to networked fish-bearing channels as sediment is transported downstream, essentially decreasing or eliminating the effectiveness of riparian management zones in maintaining low turbidity at a watershed scale. The commenter also described that erosion and sedimentation contributes to losses in channel depth, the frequency and quality of pools, and off-channel habitat critical for fish rearing. Another commenter noted the constant need for regular dredging of the port of Brandon and other coastal facilities due to siltation caused by erosional riparian areas.

In addition, commenters stated that increased sediment delivery and lack of LWD recruitment also impacts designated uses, such as salmoids and drinking water. Commenters explained how increased sedimentation contributes to increased levels of fine sediment, increased turbidity that can impair salmonid sight feeding and cause gill damage. A commenter also discussed how increased sediment

delivery can even cause increased water temperatures in the absence shade loss. Others pointed out the importance of forest riparian buffers for maintaining healthy drinking water by filtering sediments, pesticides, and other pollutants from the water. One commenter noted that even where narrow buffers exist along river shores (e.g., the Siletz River), there are places where the forest buffer has been eliminated completely and streams that flow into the Siletz have no buffer zone at all.

Finally, a commenter also stated that large stream buffers play an important role in storing additional carbon and reduce greenhouse gas emissions.

Sources: 15-E-1, 15-F-1, 15-F-2, 28-B-1, 30-K-1, 35-J-1, 42-D-2, 45-AAA, 56-D-1, 56-D-2, 57-BBB, 57-DDD, 57-EEE, 58-B-1, 58-E-1, 58-E-3, 58-E-4, 58-H-2, 58-H-6, 75-I

Response: NOAA and EPA recognize the importance of riparian buffers along Oregon streams, including both small and medium fish-bearing streams and non-fish bearing streams. The federal agencies continue to find that Oregon's existing riparian management practices are not sufficient to protect water quality and designated uses from nonpoint source pollution related to forestry practices. The state still needs to adopt additional management measures to provide greater protection of forestry riparian areas before NOAA and EPA can find that the state has fully satisfied its coastal nonpoint program requirements under CZARA.

NOAA and EPA revised the final decision document for Oregon's Coastal Nonpoint Program to include additional scientific information about the importance of riparian areas. As discussed in the decision document, riparian buffers play an important role in shading streams to maintain cold water needed for salmon. They also help filter sediment and control erosion; excess sediment can impair salmon habitat and drinking water. Riparian buffers also filter other polluted runoff from entering streams, such as pesticides and other chemical applications. In addition, buffers serve as a valuable natural source of large woody debris that adds complexity to the stream habitat and is important for salmon.

In the decision document, NOAA and EPA acknowledge that the Board of Forestry has been considering a rule change that would provide greater protections to small and medium fish bearing streams. NOAA and EPA encourage the state to complete the rulemaking expeditiously. However, NOAA and EPA also recognize that the rule change, if successful, will not address non-fish bearing streams and that the state also should protect riparian areas along these streams as well.

C. Forestry Riparian Management Accomplishments

Comment: Speaking to the accomplishments of Oregon's coastal nonpoint program as it relates to forestry-riparian management, commenters emphasized their support for Oregon's existing rules and programs in place to manage the forest industry and maintain water quality and riparian protections. One commenter pointed out that Oregon's Department of Forestry works to strengthen forest rules for riparian protection but faces political challenges that require "thoughtful science". The commenter noted the importance of maintaining the forest industry's support for water quality protection and acknowledged this process will take longer than Spring 2014.

Another commenter, on behalf of various groups, noted that private landowners, foresters, and loggers all support the Oregon Forest Practices Act and believe application of its rules is high. Another group called attention to Oregon's fifteen plus years of "superior voluntary riparian watershed enhancement accomplishments" by the forest sector and contended that EPA and NOAA's restrictions would "stifle

these valuable watershed improvements". Lastly, another group noted how Oregon's Department of Forestry has been doing good work to improve water quality and riparian habitat.

Sources: 14-D, 77-AAA, 79-D, 82-B

Response: Currently Oregon relies on both regulatory and voluntary measures to provide riparian protections for fish bearing streams and non-fish bearing streams. While these practices are certainly better than having no protections in place, as discussed more fully in the final decision document, the science shows that Oregon's current riparian protection practices are not adequate for meeting water quality standards, specifically the cold water protection criterion of the temperature standard. Having broad-based support for Oregon's Coastal Nonpoint Program, including from the forest industry, will help contribute to the program's success. However, Oregon cannot continue with the status quo and ignore the results of multiple scientific studies that show changes must be made to the state's existing forestry riparian practices to achieve and maintain water quality standards.

NOAA and EPA recognize the political challenges the state faces as it considers a change to the FPA rules to provide greater riparian protection of fish-bearing streams and the importance of good science to support a rule change. Both NOAA and EPA have testified in front of the Board of Forestry in support of the science that shows greater riparian protections are needed. Both agencies stand ready to continue to assist the state, as needed, as it moves forward with the rule change.

Although the federal agencies understand a rule change takes time, NOAA and EPA cannot further delay a final decision on Oregon's Coastal Nonpoint Program. NOAA and EPA have already provided Oregon sufficient time to develop a fully approvable coastal nonpoint program. Per a settlement agreement with the Northwest Environmental Advocates, the federal agencies must make a final decision by May 15, 2014, (subsequently extended to January 30, 2015, by mutual agreement of the settlement agreement parties), regarding whether or not Oregon has failed to submit an approved (without conditions) coastal nonpoint program. NOAA and EPA arrived at this timeline based on the original commitment Oregon made in a letter to NOAA and EPA dated July 26, 2010, that the state would address its remaining conditions by March 2013.

D. Adequacy of Forestry Riparian Management for Protecting Small, Medium Fish-Bearing Streams and Non Fish-Bearing Streams

Comment: Many commenters expressed the opinion that Oregon's existing riparian management practices and forestry laws were inadequate for protecting small and medium fish-bearing and non-fish bearing streams. When required, buffer requirements are minimal (e.g., 20 feet) and Oregon lacks buffer requirements for non-fish bearing streams altogether. One commenter reasoned that because riparian buffers are not required for non-fish bearing streams, they become a source of sediment for connected fish-bearing channels thus compromising the effectiveness of the overall system of riparian management in maintaining sufficiently low turbidity.

Commenters stated that the Oregon Forest Practices Act and other comparable forest practices have been widely criticized for failing to protect water quality and salmonid habitat (examples provided of such failures related to inadequate shade, poor large wood recruitment, lack of tributary protection, and unstable slopes). They also stated that Oregon's forestry riparian protection standards lagged behind those of their neighboring states, such as Washington and California. Commenters pointed to the National Marine Fisheries Services' determination that the Oregon Forestry Practices Act did not have

rules in place to adequately protect coho salmon habitat. Commenters opined that the FPA did not provide for the production and introduction of necessary large woody debris to medium, small, and non-fish bearing streams and any required buffers under the rules were inadequate for preventing significant warming of streams.

A white paper analyzing the proposed O&C Trust and the Conservation and Jobs Act was noted as providing evidence of support for the need of more stringent programs to protect water quality in Oregon's coastal zone. A concern was raised that even where narrow buffer zones exist along river shores there were areas where those buffers were eliminated completely. The claim was also made that the Board of Forestry has not shown any intent to provide riparian protection for non-fish bearing streams, which were believed to make up the majority of coastal stream miles and flow into fish bearing streams.

A commenter discussed how restoring and maintaining productive aquatic habitat did not appear to be a common stated objective of Oregon programs that influence the management and use of riparian areas and it appeared that riparian corridors have been significantly degraded across large portions of the state's landscape. Other comments pointed to the RipStream study findings as evidence that the existing FPA buffers are not in compliance with water quality standards and the Clean Water Act. They stated that riparian management on private lands has not improved since.

Other comments pointed out other weaknesses in Oregon's existing FPA rules. For example, the rules do not protect non-perennial, or intermittent, streams, which are determined "by the State Forester based on a reasonable expectation that the stream will have summer surface flow after July 15." In addition, the commenter raised issue with the lack of required riparian management for seeps and springs as well.

On the other hand, a couple of commenters believed Oregon's existing Forest Practices Act and rules, combined with its voluntary efforts, were adequate for protecting forestry riparian areas. One commenter stated the Forest Practices Act and rules do provide the minimum requirement for developing large mature trees that can contribute wood debris to streams. They also asserted that voluntary efforts, such as discretionary placement of additional wood in the stream, help to further create large wood debris habitat that salmon need. In addition, they discussed other new voluntary practices are being implemented well among the forest industry, such as the retention of additional leave trees in near-stream areas, and targeted restoration of high-priority riparian areas that are lacking woody debris.

These commenters cited results from several recent Watershed Research Cooperative (WRC) studies to support their position that Oregon's existing forestry riparian management was adequate. For example, they state that that two of the three WRC studies indicate a positive fish response following timber harvesting and that the Hinkle Creek WRC study found that small debris provides shade to non-fish bearing streams.

In addition, a couple of commenters chastised NOAA and EPA for relying on much older studies, such as ODF's 1999 RipStream study and the 2002 ODF and DEQ Sufficiency Analysis, to support the federal agencies' claim that Oregon's needed greater protection of small, medium fish-bearing streams and non-fish bearing streams. They stated NOAA and EPA should have considered newer, more relevant research, such as the WRC studies. In addition, one commenter felt NOAA and EPA misinterpreted the

RipStream study findings. They believed NOAA and EPA's description of the study's findings on page 8 in the proposed decision document did not align with the actual conclusions of the report.

One commenter also reflected that the criticism of the existing FPA and rules should be tempered against the evolving science and understanding of forestry riparian management. They site how former thinking that clean wood placement in streams was needed to improve instream fish habitat and increase dissolved oxygen, has now evolved to an understanding that large woody debris is needed to achieve these goals. In addition, the commenter states that while there used to be an emphasis on retaining large conifers along streams, that thinking has now shifted to reflect a new understanding of the benefits of riparian hardwoods as well and the importance of diversity in tree species within the riparian zone.

Sources: 15-G-2, 28-B-1, 30-K-1, 43-BBB, 55-P, 56-D-2, 56-E-1, 56-E-2, 56-E-3, 57-AAA, 57-BBB, 58-E-2, 58-H-1, 58-H-3, 58-H-4, 58-H-5, 67-D1, 67-D-2, 75-H, 77-H. 77-I, 77-BBB, 77-CCC, 77-DDD, 79-E, 79-G

Response: NOAA and EPA continue to find that Oregon needs to do more to protect riparian areas along small and medium fish-bearing streams and non-fish bearing streams. As discussed in more detail in the final findings document for Oregon's Coastal Nonpoint Program, there is a wealth of science, such as the recent 2011 RipStream study, that shows that Oregon's existing FPA riparian protection practices on private forest lands in the Oregon Coast Range, are not sufficient for meeting the cold water protection criteria for the state's temperature water quality standard.

A few commenters claimed the existing FPA practices, coupled with voluntary riparian protection efforts, are sufficient for protecting riparian areas. These commenters cited unpublished, preliminary results from the Watershed Research Cooperative's paired watershed studies that indicated changes in stream temperature along non-fish bearing streams was variable and that were was no significant change in downstream due to harvesting activities under the FPA. However, as NOAA and EPA discuss more fully in the final findings document, variation in stream temperature and overall net observed decrease in temperature decrease may be attributable to increased slash debris along the stream after harvest as well as a likely increase in stream flow post-harvest that could prevent an increase in temperatures and contribute to lower mean stream temperatures. DEQ evaluated the study results and concluded that temperature data from the Hinkle Creek and Alsea River paired watershed studies show that temperature increases downstream from the harvest sites for fish-bearing streams were very similar to the increases found in the RipStream study. Therefore, as stated in the final decision document, there may be other factors at play that make it difficult to draw any definitive conclusions about the adequacy of the FPA practices from their results.

NOAA and EPA do not believe the federal agencies have misinterpreted the RipStream study in the proposed findings document as one commenter claimed. In the proposed findings, NOAA and EPA stated,

> "A significant body of science, including: 1) the Oregon Department of Forestry's (ODF) Riparian and Stream Temperature Effectiveness Monitoring Project (RipStream)…continues to document the need for greater riparian protection around small and medium streams and non-fish bearing streams in Oregon. In its July 1, 2013, submission to the federal agencies, Oregon cited the RipStream study and acknowledged that there was evidence that forest practices conducted under the State's existing Forest Practices Act (FPA) rules do not ensure forest operations meet the State water quality standards for protecting cold water in small and medium fish bearing streams."

While NOAA and EPA did not specify which RipStream study they were referring to in the body of the proposed findings, the References section at the end of the document does provide the full citation for the three RipStream studies, one published in 2008 and two published in 2011. These RipStream studies assessed how the FPA's existing riparian protection practices affected stream temperature. In their RipStream publication, Groom et. al. (2011a) found that there was a "40.1% probability that a preharvest to postharvest comparison of 2 years of data will detect a temperature increase of >0.3 ºC". The state's stream temperature anti-gradation standard says that water temperatures cannot increase more than 0.3 ºC. Therefore, the researchers concluded that "[stream temperature] anti-degradation [standard] compliance may be a problem on private forestry lands in the Oregon Coast Range."[7]

The statements NOAA and EPA made in the proposed findings document about the RipStream study align with this conclusion. To address any apparent confusion regarding the federal agencies' interpretation of the RipStream study, NOAA and EPA have revised the final findings for Oregon's Coastal Nonpoint Program to further clarify the discussion of the RipStream study to include an in-text citations for the RipStream studies and provide a more in-depth discussion of the study's results.

As one commenter stated, the science around riparian buffer protection is evolving. That is true. NOAA and EPA continue to welcome and support scientifically rigorous studies to evaluate the effectiveness of Oregon's existing practices in protecting water quality standards and designated uses and to investigate alternative approaches that will provide greater protection, when warranted. However, just because the science is continuously evolving should not prevent Oregon from taking action to provide better riparian protection when the current science clearly shows that the state's existing FPA practices are not meeting the protection of cold water criterion for the temperature standard. Employing a nimble adaptive management approach that allows the state to make adjustments and to identify when additional management measures are needed based on current science, is a core component of a state's coastal nonpoint program (See Section 6217(b)).

As a few commenters noted, Oregon's riparian protection standards for small and medium fish-bearing streams and non-fish bearing streams are not as strong as those for neighboring states like Washington and California. For example, Washington [****insert details]. In California, [**** insert details]. CZARA gives states the flexibility to develop a program that best meets their unique needs. Therefore, while Oregon does not have to adopt the same standards as its neighbors, NOAA and EPA encourage Oregon to look to Washington and California as potential models for the types of riparian protection practices it may wish to consider. These practices have already been instituted by the forest industry in Washington and California which have had to contend with similar topographies, weather conditions, and sensitive species.

Finally, NOAA and EPA note that one commenter expressed concern that in some areas, even Oregon's current FPA buffer requirements were not being followed. While that may be the case, that is an enforcement issue. Under CZARA, how well a state is enforcing its existing policies and programs is not considered for coastal nonpoint program approval. (See the response to Section VI.C, Enforcement, for a fuller explanation).

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[7] Groom, J.D., L. Dent, and L.J. Madsen. 2011. Stream temperature change detection for state and private forests in the Oregon Coast Range. Water Resources Research 47: W01501, doi:10.1029/2009WR009061.

E. Greater Protection of Forestry Riparian Areas Needed

Comment: Several commenters stated that Oregon needs to provide greater protection for forestry riparian areas along both fish and non-fish bearing streams. One commenter provided several examples of recommended buffer widths that the state may wish to adopt. For example, they mentioned that NMFS recommends no-cut riparian buffers ranging from 150-300 feet in width to protect salmonids. The larger buffer widths are for fish-bearing streams, while the smaller widths are more suitable for non-fish bearing streams. The commenter also stated the Northwest Forest Plan recommends similar buffer widths (300 foot no-cut buffers along fish-bearing streams and 150 foot no-cut buffers along non-fish bearing streams). The commenters stated that wider riparian buffers would ensure large wood recruitment, improve sediment and pesticide filtration, and provide sufficient tree basal area within the riparian zone to shade streams and protect cold water needed for salmon. As one commenter also asserted, the larger buffers would also provide greater protection from blow downs and ensure that if a few trees are blown down, enough would remain to still provide a functioning buffer.

In addition to greater protection of forestry riparian areas, commenters stated that riparian restoration was needed. They highlighted the important role large downed trees, or nurse trees, play in forest regeneration.

One commenter did express concern with adopting riparian buffers similar to the Northwest Forest Plan. They stated that when the Bureau of Land Management adopted the plan's buffers, it limited the amount of timber that could be harvested. The new buffer requirements necessitated three landings and two more harvest units to harvest the same amount of timber that used to be done with one landing before. Therefore, as the commenter stated, more restrictive riparian buffers leads to greater ground disturbance.

Sources: 20-B-1, 30-K-1, 48-I, 55-N, 56-E, 56-E-1, 56-E-2, 57-E-3, 58-E-4

Response: NOAA and EPA agree that Oregon needs to do more to protect riparian areas along small and medium fish-bearing streams and non-fish bearing streams. In the final decision document, the federal agencies acknowledge the Board of Forestry's ongoing rulemaking process that is considering improvements to the FPA riparian protections for small and medium fish-bearing streams, may help the state provide some of the protection needed. NOAA and EPA encourage the state to complete those rule changes as expeditiously as possible.

NOAA and EPA appreciate the recommended buffer widths commenters provided and will be sure to share these suggestions with the state for its consideration. CZARA does not require states to adopt specific buffer widths to have a fully approved coastal nonpoint program. Rather, the state has the flexibility to identify the type of buffer protection that works for them yet still will enable them to achieve and maintain water quality standards. NOAA and EPA continue to work with Oregon to make sure the state has a good programs and processes in place to provide the riparian protection needed.

As with implementing any best management practice, there are trade-offs to be made. In some limited circumstances, more restrictive riparian buffers may result in greater ground disturbance to harvest the same amount of timber, when implemented well, the benefits wider riparian buffers provide to protect water quality and designated uses can outweigh any potential adverse environmental effects.

Finally, while Oregon should be encouraged to continue to restore forestry riparian areas through its voluntary Oregon Watershed Enhancement Board activities and other means, having specific restoration

programs in place for forestry riparian areas is not one of the remaining issues Oregon needs to address to satisfy the condition related to additional management measures for forestry on its coastal nonpoint program. NOAA and EPA did not solicit specific comments regarding Oregon's program to restore forestry riparian areas.

F. Impacts of Strict Forestry Riparian Protection

Comment: A couple of commenters expressed concern about the impacts stricter riparian management would have on forestry operations. One commenter felt requirements for larger riparian buffer widths would only hurt the logging industry and drive up the price of lumber. Another commenter stated that any EPA and NOAA-proposed restrictions would limit the ability of private forest landowners to invest in watershed restoration efforts, including enhancements to forestry riparian areas. They felt additional restrictions would smother the forest sector's cooperative stewardship ethic and long-history of voluntarily adopting good riparian management and other forest stewardship practices.

Sources: 20-B, 79-D, 79-F

Response: NOAA and EPA recognize that wider no-cut riparian buffer requirements and strengthening other riparian management practices may slightly reduce the number of harvestable trees available to the timber industry in Oregon. However, many of the same timber companies are also successfully operating in Washington and California—states that already have stronger riparian protection requirements in place. Even though the timber industry must abide by stricter riparian protections in neighboring states, the industry still adopts voluntary practices that provide further protections and works with partners on watershed restoration activities in those states. For example….[can we include an example from WA or CA where the industry still has a "good stewardship ethic" and helping out with restoration or additional voluntary BMPs?].

Therefore, NOAA and EPA do not believe increasing buffer requirements within Oregon's coastal nonpoint management area will have a significant impact to the forestry industry in Oregon. Also, with more robust riparian protections in place, there will not be as great a need for the industry to invest in watershed restoration efforts. Riparian area and, as a result, water quality would be protected before damage occurs that would necessitate restoration. After all, it is typically more cost-effective to protect an area to begin with than to try to clean up a mess after it occurs.

G. Flexibility for Forestry Riparian Management Needed, Including Use of Voluntary, Incentive-Based Approaches

Comment: Rather than relying on strict regulatory approaches to better protect riparian areas on forest land, a few commenters advocated for more flexible, voluntary, and incentive-based approaches. The commenters recognized more could be done to protect riparian buffers, and thus water quality, salmon and other designated uses. However, they felt additional incentive-based approaches, combined with the existing Forest Practices Act rules, would be the best way to provide these additional protections and facilitate long-term wood recruitment and shade to support high-quality salmon habitat. Voluntary practices they recommended included the retention of additional leave trees near fish-bearing streams, the placement of large woody debris in streams, planting trees and other riparian restoration activities, and thinning riparian forests to levels that promote primary production in streams and the adjacent understory (primary production being important for salmon populations).

Sources: 75-F, 77-CCC, 79-D, 79-F

Response: NOAA and EPA understand and respect the need for states to be able to use flexible approaches in developing and implementing their coastal nonpoint programs. CZARA requires management measures to be backed by enforceable authorities. As NOAA and EPA describe in the *1998 Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990,*[8] this can either be through direct enforcement authority or through voluntary efforts, backed by enforceable authorities. If states chose a voluntary approach, as the guidance outlines, that states not only must provide a description of their voluntary programs but also meet other requirements including: (1) providing a legal opinion asserting they have suitable back-up authorities and demonstrating a commitment to use the back-up authority, when necessary; and (2) have program in place to monitor and track implementation of the voluntary program. Voluntary programs could play an important role in Oregon's Coastal Nonpoint Program, however, the state has not fully described its voluntary programs for forestry riparian protection or satisfied the other requirements needed to use voluntary programs to meet part of their CZARA 6217(g) management measure requirements.

H. Forestry Landslide Management

Comment: Some commenters acknowledged that landslides caused by logging practices, such as clear cutting on steep slopes, are a real problem in Oregon and additional management measures are necessary to address these impacts. It was noted that Oregon does not have sufficient programs to reduce landslide risk and control nonpoint pollution due to logging on private lands.

Others expressed their disagreement with the federal agencies' recent decision and argued that the evidence provided by the federal entities was misleading, only focusing on "landslide density relationships" rather than considering the "total number of landslides triggered during major storms". If consider the latter, one would see that the "potential increases in sediment delivery to public resources from landslides...is proportionally small". It was recommended that EPA consider a broader scale view over longer timeframes to evaluate whether water quality and designated uses are impaired. In addition, it was argued that EPA has not offered objective evidence that additional management measures are needed to maintain water quality; the federal agencies have not produced any evidence that landslides resulting from forest management activities have caused exceedances in water quality or negatively impacted aquatic life.

Source: 61-A, 63-B, 67-B, 77-J, 77-K, 77-L

Response: NOAA and EPA continue to find that Oregon needs to do more to protect high-risk landslide areas from logging activities to ensure water quality and designated uses are not impaired. Based on the comments received, NOAA and EPA have revised the rationale in the final decision document to provide more specific scientific evidence to show the link between timber harvesting and landslide risk and how landslides increase sediment loads to nearby streams.

NOAA and EPA disagree that a wider landscape-scale approach to assessing landslide impacts would be appropriate. While the effects of a single landslide may be diluted when a landscape scale view is taken, the impact to a specific stream reach (or reaches), and the designated uses of that stream, are real and can be significant. It is still important to capture and consider these impacts when planning harvest activities so that landslide risks that can impair waterbodies can be minimized.

[8] http://coastalmanagement.noaa.gov/nonpoint/docs/6217adminchanges.pdf

I. Forestry Road Management

Comment: One group commented that there is no program in place to control non-point pollution sufficiently to meet CZARA and management measures are needed to maintain water quality and protect designated beneficial uses due to logging impacts. Examples of logging roads and associated impacts to watersheds and habitat were noted by various commenters. Speaking to current forest practice rules, another group commented that "generic BMPs" are imposed and are not backed by relevant water quality data and so fail at protecting water quality and beneficial uses. The group added that existing rules for forest roads are vague and prioritize logging over protection of water quality. One argument stated that Oregon's road location rule, which only requires operators to minimize risk to streams rather than requiring them to avoid water quality problems, is not sufficient. Other examples given demonstrating the inadequacies of the current forest practices rules include how they are not designed to eliminate delivery of fine sediment or to ensure that delivery does not impair water quality and they do not require that existing, inactive logging roads or "legacy roads" be brought into compliance with water quality standards.

Another group made the argument that while NOAA and EPA have expressed their concerns about forest roads delivering sediment into streams and have requested that the state enact an inventory and reporting program for forest roads, they have not cited any sources supporting these concerns and have presented no basis for the request. The commenter contends that new rule revisions (2002 – 2003) and success under the Oregon Plan for Salmon and Watersheds were detailed in the State's submission and are evidence that the Oregon Forest Practices Act is working as it should and the Board of Forestry is committed to implement additional management measures for forestry roads as needed. They also note that salmon stocks are recovering. The commenter also argued that while NOAA and EPA have expressed their concerns about forest roads delivering sediment into streams, they have not cited any sources supporting these concerns.

Source: 57-D, 57-I, 57-N, 57-O, 57-P, 57-R, 57-T, 57-U, 67-B, 75-D, 77-M, 77-N, 77-O, 77-P, 77-Q, 77-P, 77-Q

Response:

J. Impacts of Forestry Pesticide Application on Human Health, Drinking Water, and the Environment

Comment: Many commenters voiced concerns about the short and long-term impacts of pesticide and herbicide use associated with the forest industry in Oregon, especially using aerial spraying as a method of applying these chemicals. These commenters believed that Oregon coastal watersheds are not adequately protected from the use of these chemicals. Adverse impacts to drinking water, human health, salmon, amphibian and crayfish habitat, water quality, and property values, were among the list of concerns commenters raised. One commenter stated amphibians are particularly vulnerable because they have moist, permeable skin and unshelled eggs that are directly exposed to soil and water that could be contaminated with pesticides. Another commenter also discussed how certain chemical properties of herbicides allow them to persist in the environment and to eventually be carried downstream to fish. They stated that pesticides and herbicides, like atrazine, can bind to soil particles and then washed into waterways through surface runoff, sediment erosion, or groundwater transport. One commenter noted that is of particular concern because in Oregon, it is legal to spray herbicides, like atrazine, over dry channels. During wetter months, when the channels fill with water, atrazine, bound to the soil, can be carried downstream and affect fish.

A commenter also stated that not enough is known about the interactions of various pesticides and herbicides chemicals when mixed. They noted that synergistic effects of unknown components of pesticides could inhibit immune responses and pose long-term unknown issues.

Several commenters sited specific studies or personal observations to support their statements. For example, one commenter stated one finding of the report, *Oregon's Industrial Forests and Herbicide Use: A Case Study of Risk to People, Drinking Water and Salmon*, concluded there are known endocrine disrupting chemicals entering Oregon's drinking water sources and fish-bearing streams.

Other commenters described acute health impacts (e.g., headaches, breathing issues, etc.) immediately following spray events and more long-term health issues they contributed to pesticide exposure. One commenter reported that their drinking water system tested positive for glyphosate while another commenter, from the Triangle Lake area, stated that their urine and blood tested positive for 2,4-D and atrazine metabolites. Another commenter also relayed how people in Western Lane County were found to have low (high?) levels of insecticides in their blood. In the Triangle Lake area, a commenter stated that pesticide application records showed that over 20 tons of pesticides were applied in a three-year period. Commenters also reported seeing dead fish in streams after spray events and said that chemicals used in forest practices have been found in local streams.

Source: 2-C, 2-F, 2-G, 2-K, 2-J, 3-A, 3-B, 27-C, 28-C, 30-G, 30-P, 30-Q, 31-D, 35-L, 40-B, 42-F, 42-M, 42-R, 42-T, 46-E, 46-K, 46-O, 46-D, 46-E, 46-G, 48-F, 48-K,53-D, 54-D, 54-G, 54-F, 54-H, 55-M, 57-CF-A, 57-CF-B, 57-CF-D, 58-I, 59-A, 62-B, 62-C, 62-E, 69-B, 69-C, 69-D, 69-E, 69-F, 70-C, 70-D, 70-E, 70-G, 70-H, 70-J, 70-O, 72-B, 75-C, 76-A, 76-C, 76-D, 77-R, 77-S, 77-T, 83-M, 85-D, 85-E

Response: EPA and NOAA recognize that forestry pesticides are being observed in some drinking water and stream samples in coastal Oregon and that many citizens are concerned about adverse the public health and environmental impacts due to pesticide exposure. To better understand pesticide exposure, the Oregon Health Authority and other agencies are leading an Exposure Investigation to evaluate whether aerial application is affecting drinking water, surface water, food, and other resources. Additional research and monitoring is also needed to understand the potential impacts of pesticide use in Oregon. That is why, in the final decision document for Oregon's Coastal Nonpoint Program, NOAA and EPA have recommended Oregon continue to strengthen and expand its forestry pesticide monitoring efforts, especially within the coastal nonpoint program area. NOAA and EPA encourage Oregon to develop these more robust monitoring protocols in consultation with EPA and NOAA's National Marine Fisheries Service so that sound methodologies are selected to assess potential impacts to water quality and designated uses.

K. Adequacy of Current Forestry Pesticide Management Practices for Protecting Water Quality and Designated Uses

Comment: Many commenters expressed concern that Oregon does not have adequate management practices in place for the application of pesticides by the forest industry to protect water quality and designated uses. They cited specific studies and personal experiences of pesticide exposure to illustrate that current practices were allowing pesticides to impact human health and the environment. (See summery comment VI.A (Impacts of Forestry Pesticide Application) above.)

Commenters asserted that Oregon does not have an effective pesticide management program to protect groundwater and drinking water. Many commenters focused on the inadequate spray buffers

for pesticide application. For example, commenters asserted that Oregon's existing spray buffers for the aerial application of pesticides, including the 60 foot no-spray buffer around fish-bearing streams, are ineffective at protecting water quality and designated uses, including drinking water; the 60 foot buffer is too small and non-fish bearing streams are not protected at all. For example, one commenter described that they observed narrow or non-existent buffers along streams that flow into the Siletz River where there are clear cuts to the banks and aerial spraying occurring over the cuts.

Several commenters noted that Oregon's spray buffer requirements, and many other pesticide management practices, were not as protective as neighboring states. Commenters felt Oregon needed larger spray buffers around waterbodies for the aerial application of pesticides and herbicides. One commenter also suggested a pesticide-free buffer was needed around certain land uses, such as schools. Another commenter expressed concern about herbicide spraying was allowed to occur in Lane County despite protection zone language and the Water Districts efforts to prevent application over the Clean Lake watershed (a drinking water watershed). Another commenter also asserted that additional research is needed to determine if aerial spraying of herbicides by the forest industry is a necessary method of application.

Commenters did not feel Oregon's existing spray buffers were large enough to protect against aerial drift, which they asserted was a common occurrence given the microclimates of the Oregon Coast Range. Commenters were concerned that aerial drift of pesticides from the application site could impact nearby organic farms, vineyard owners, natural forest land owners, members of the community, streams, and drinking water sources. One commenter stated that although the Oregon Health Authority acknowledges that aerial drift can carry pesticides two to four miles from the application site, there is no monitoring of pesticide drift after application. Another commenter noted that glyphosate was detected in Jetty Creek, illustrating that legal spray buffers were not protective enough. A commenter suggested that EPA should require ODF, in consultation with DEQ, to exercise authority to review comments and require modifications of the written forest vegetation management plans when needed. A commenter also stated that additional management measures to provide increased protection for both fish and non-fish bearing streams during the aerial application of herbicides.

However, other commenters contended that Oregon's existing forestry pesticide management practices were adequate. They stated that pesticide applications must be licensed and, along with landowners, are already subject to stringent regulations and guidelines under the FPA and FIFRA. One commenter also noted that ODF has developed guidelines to provide further assistance implementing the FPA rules, including Forest Practice Rule Guidance for Chemical and Other Petroleum Products (2009). A few commenters asserted that EPA label requirements under FIFRA were sufficient. A commenter also noted that EPA has not revised the pesticide labels to reflect the restrictions that NOAA National Marine Fisheries Services' biological opinion on the pesticide labels says are necessary to protect ESA-listed salmon.

One commenter stated that water quality monitoring activities for non-fish bearing streams during and after spraying herbicides has shown no detrimental impacts to water quality. For example, one commenter cited a U.S. Geological Survey study (Kelly et. al, 2012) that looked at pesticide use in the Clackamas Basin. The commenter reported the study found that although low levels of pesticides were detected in some drinking water samples the potential threat to human health was negligible. The study also compared pesticide contamination from urban, forestry, and agriculture use and found that the forest land pesticides were rarely detectable in the McKenzie River, even though forest land accounted

for the largest land use in the basin. In addition, a commenter also stated that Oregon continues to monitor for over 100 pesticides, which allows the state to identify potential problems with the aerial application of herbicides, if any arise.

Sources: 2-E, 2-I, 3-A, 27-C, 28-B, 30-G, 30-S2, 35-D, 35-E, 35-J, 42-H, 42-Q, 45-B, 46-C, 46-I, 46-D, 49-H, 54-B, 55-N, 56-F, 57-CT-B, 58-F, 62-B, 69-C, 70-C, 70-E, 70-J, 70-K, 70-L, 70-M2, 70-N, 76-C, 77-R

Response: NOAA and EPA recognize there is concern about the adequacy of Oregon's current spray buffers for pesticides and other pesticide management practices. Although a some research, such as Kelly et. al (2012) has shown that current pesticide management practices may not be resulting in adverse impacts to water quality and designated uses, this study was not conducted directly following a spray event so is not able to paint a full picture of pesticide exposure. Ex. 5 - Deliberative

Ex. 5 - Deliberative

Although there is always room for states to continue to improve their pesticide management practices, for the purposes of coastal nonpoint program approval, NOAA and EPA are only concerned with the adequacy of the state's protective measures for Type N (non-fish bearing streams) during the aerial application of herbicides. The final decision document for Oregon's coastal nonpoint program lists several steps the state could take to provide better protection for these non-fish bearing streams.

Although CZARA allows each state to design a coastal nonpoint program that meets their own unique needs and circumstances, NOAA and EPA also encourage Oregon to look to its neighboring states for examples of more protective practices that may also be useful to implement during the aerial application of herbicides along Type N streams. As some commenters stated, Oregon does have smaller spray buffers for the aerial application of herbicides compared to neighboring states and could learn from neighboring states that have similar topography, weather conditions, and sensitive species. For example….[insert examples from other states or if included in final decision doc, note that it is discussed more fully there so we don't have to repeat ourselves.]

L. Inadequate Notification and Transparency by Forestry Industry When Pesticides Are Used

Comment: Several commenters expressed concern about the poor notification procedures and lack of transparency related to the aerial application of pesticides. For example, one commenter described one instance where aerial spraying occurred within their watershed without warning. Commenters stated that the public is not informed of the exact date when spraying will occur; only provided a six-month window of when it would occur is provided. They also asserted that the notification requirements were vague and that pesticide application records were not available to the public. A commenter stated that application records are only available to the State Forester when requested. Another commenter stated that the Oregon Forest Practices Act prohibits researchers, doctors, and the public from obtaining accurate information about the types and quantities of herbicides that are sprayed.

Sources: 40-C, 42-G, 42-J, 42-K, 42-L, 42-P, 42-S, 46-E, 46-L, 48-G, 48-M, 53-D, 54-G7, 70-M, 85-I

Response: When pesticides are being used, it is important for the public to be well informed about when and what types of pesticides will be used near their property. That is why, in the final decision document, NOAA and EPA have recommended that Oregon improve its notification processes and transparency for the aerial application of herbicides and other pesticides.

M. Inadequate Forestry Pesticide Monitoring

Comment: In addition to their general concern about pesticide use by the forest industry and inadequate spray buffers when pesticides are applied, several commenters expressed their concern about the inadequacy of Oregon's water quality monitoring efforts following aerial application of pesticides and herbicides on forestry lands. One commenter stated Oregon has no program to determine the presence of forestry pesticides in the air and resulting in drift and deposition onto surface waters and soils. Commenters gave many examples of how they believe drinking water, human health, and fish and wildlife have been impaired by aerial spraying.

One commenter noted without effective monitoring protocols, the state lacks data to prove aerial application is a problem and that improvements were needed. For example, one commenter stated there was no monitoring of aerial drift even though the Oregon Health Administration said chemicals could drift two to four miles. Another commenter also noted there was little to no coordination between DEQ and ODF on pesticide monitoring. A few commenters also questioned NOAA and EPA's praise of Oregon's Water Quality Pesticide Management Plan. They noted that while the state purportedly uses water monitoring data to develop adaptive management approaches, the state actually undertakes very little pesticide monitoring and that there is no evidence the state collects any data in coastal watersheds.

It was pointed out that while NOAA and EPA found state-level frameworks and actions sufficient for addressing pesticide water quality controls, none of the pilot monitoring programs supporting this finding occur in the coastal zone. A commenter also added that the agencies "improperly assume that, should riparian buffer standards for type N streams and monitoring programs within the coastal zone adhere to existing state laws and programs concerning water quality and pesticides, then Oregon's CNPCP would warrant approval." The commenter contended that existing state and federal laws do not sufficiently address a large portion of pesticide application activities and do not collect necessary pesticide application and risk data. Referring to Oregon's Water Quality Pesticide Management Plan, which has a component that relies on monitoring data, a commenter noted that the state does little monitoring of pesticides and there is no indication of data being collected in coastal watersheds. A commenter also expressed concern with the lack of timely coordination between DEQ and ODF on pesticide monitoring in a timely manner.

However, other commenters noted that the Board of Forestry specifically requires effectiveness monitoring and evaluation of the chemical rules which lay out how applicators should use pesticides. They state the rules are designed to ensure chemicals do not occur in soil, air, or waters in quantities injurious to water quality or the overall maintenance of terrestrial or aquatic life. A commenter also noted that that state has established pesticides from forest practices as a low priority in the EPA-approved Water Quality Pesticide Management Plan because pesticide monitoring for forestland has shown that pesticide concentrations are below the lowest benchmarks provided by EPA.

Source: 27-B, 27-D, 30-R, 30-S, 42-G, 42-H, 42-N, 42-O, 46-H, 48-H, 49-H, 49-I, 53-D, 53-H, 53-I, 54-E, 54-F, 54-G1, 57-II, 57-II4, 62-C, 62-F, 70-B, 70-F, 70-J, 77-R, 77-T and State Comments

Response: In order to employ an effective adaptive management approach to pesticide use, as Oregon has proposed, it is important for the state to have a robust pesticide monitoring and tracking program in place that includes timely sampling (e.g. right after aerial application) and monitoring sites throughout the coastal nonpoint area. Although some monitoring studies have not found herbicides at harmful levels, other research has (see above responses). Therefore, as discussed more fully in the final decision

document, NOAA and EPA believe Oregon would benefit from improved pesticide monitoring, especially expanding its pilot Pesticide Stewardship Program to include several sites within the coastal management area.

N. Inadequate Forestry Pesticide Monitoring

Comment: In addition to their general concern about pesticide use by the forest industry and inadequate riparian buffers when pesticides are applied, several commenters expressed their concern about the inadequacy of Oregon's water quality monitoring efforts following aerial application of pesticides and herbicides on forestry lands. One commenter stated Oregon has no program to determine the presence of forestry pesticides in the air and resulting in drift and deposition onto surface waters and soils. Commenters gave many examples of how they believe drinking water, human health, and fish and wildlife have been impaired by aerial spraying.

One commenter noted without effective monitoring protocols, the state lacks data to prove aerial application was a problem and improvements were needed. For example, one commenter stated there was no monitoring of aerial drift even though the Oregon Health Administration said chemicals could drift two to four miles. Another commenter also noted there was little to no coordination between DEQ and ODF on pesticide monitoring. One commenter also questioned NOAA and EPA's praise of Oregon's Water Quality Pesticide Management Plan. They noted that while the state purportedly uses water monitoring data to develop adaptive management approaches, the state actually undertakes very little pesticide monitoring and that there is no evidence the state collects any data in coastal watersheds.

It was pointed out that while NOAA and EPA found state-level frameworks and actions sufficient for addressing pesticide water quality controls, none of the pilot monitoring programs supporting this finding occur in the coastal zone. A commenter also added that the agencies "improperly assume that, should riparian buffer standards for type N streams and monitoring programs within the coastal zone adhere to existing state laws and programs concerning water quality and pesticides, then Oregon's CNPCP would warrant approval." The commenter contended that existing state and federal laws do not sufficiently address a large portion of pesticide application activities and do not collect necessary pesticide application and risk data. Referring to Oregon's Water Quality Pesticide Management Plan, which has a component that relies on monitoring data, a commenter noted that the state does little monitoring of pesticides and there is no indication of data being collected in coastal watersheds.

Source: 30-R, 42-G, 42-H, 46-H, 49-I, 57-II, 70-F

Response:

O. Forestry Clear Cuts

Comment: Commenters expressed their concerns with the amount of clear cutting that occurs in Oregon. They disagreed with the FPA rule which allows up to 120 acres of forest to be clear cut and stated that the rule did not consider the cumulative impacts of multiple clear cuts. Commenters discussed how clear cutting impacts water quality. It leads to increased sediment runoff and is typically followed by pesticide and herbicide applications that also runoff to nearby waterways. They noted that increased sediment loads lead to the loss of fish spawning habitat and that toxics from pesticides and herbicides can also impact aquatic and human health. Commenters reflected that Oregon's lack of riparian buffers made the impacts of clear cutting greater since adequate buffers were not left to help filter sediment and pesticides from runoff before reaching waterways. In addition, commenters were

concerned with clear cutting on steep, erosional slopes, which contributes to landslide problems and further impacts water quality. One commenter argued that clear cutting is not sustainable and Oregon needs to practice sustainable forestry. Commenters provided examples of clear cutting in Oregon's coastal area such as: extensive clear cutting in riparian areas, including waterways that provide drinking water; clear cutting on steep slopes with erosive soils; and clear cutting that has occurred in areas within designated spotted owl sites and high-risk areas.

Source: 12-A, 40-A, 42-D, 43-D, 53-F. 75-B, 75-C, 75-D,

Response: NOAA and EPA recognize that clear cutting, if not managed well, can have adverse impacts to water quality and designated uses. That is why NOAA and EPA placed a condition to develop additional management measures for forestry on Oregon's program that specifically require the state to provide greater protection of riparian buffers around small and medium fish-bearing streams and non-fish bearing streams, for the protection of high-risk landslide areas, and greater riparian protections during the aerial application of herbicides along non-fish bearing streams. These additional management measures will help protect water quality and designated uses from the impacts of clear cutting. The state has failed to address these additional management requirements to date. Therefore, NOAA and EPA find that the state has failed to submit a fully approvable coastal nonpoint program under CZARA. The final findings document recommends actions Oregon can take to address these additional management measure requirements and thus help protect coastal water quality from adverse impacts associated with clear cutting.

X. AGRICULTURE

A. Ability of Oregon's Agricultural Programs to Meet CZARA Requirements

Comment: Some commenters noted that they did not believe Oregon had satisfied the CZARA requirements for Agriculture and the conditions related to the agriculture management measures that NOAA and EPA placed on Oregon's Coastal Nonpoint Program. They noted that Oregon must address impacts caused by polluted runoff from agricultural activities. Various points were made about the inadequacy of the management approaches and programs the state relies on to meet the CZARA requirements (see additional comments related to agriculture below for detailed examples).

Other commenters felt that the State had satisfied the CZARA agriculture management measure requirements and the conditions placed on its program related to agriculture (see additional comments related to agriculture for detailed examples). They stated that finding otherwise would be unreasonable and contrary to CZARA requirements. It would also hold Oregon to a higher standard than other states. Some commenters also contended that if NOAA and EPA find that the State has not submitted an approvable program for agriculture, that decision would punish the agriculture community; they would lose important federal funding that help reduce polluted runoff from agricultural activities.

Source: 5-B, 13-C, 19-C, 44-F, 47-B, 49-G, 56-J, 60-A, 64-A, 64-C, 65-F, 66-A, 66-C, 66-A, 68-C, 71, 84-B

Response:

Main Points to Highlight?

- After careful consideration of all comments, the State's March 2014 submittal, and other information, NOAA and EPA have concluded _____.
- State what our decision is and why we feel that way (or just refer to rationale in decision doc if that will provide sufficient explanation).

B. Extent of Nonpoint Source Pollution from Agriculture

Comment: Several commenters questioned NOAA and EPA's claim in the proposed decision rationale that nonpoint source problems from agriculture are widespread. Commenters stated that agriculture was not the predominant land use within the coastal nonpoint management area. Two different commenters provided statistics on the extent of agricultural land within the coastal nonpoint management area to support this claim. While they presented slightly different statistics (i.e., agriculture land represents only five percent of land use in the coastal zone with pasture/hay use the predominant land use versus 25 percent of land within the coastal nonpoint program area is agriculture but less than one percent of those agricultural lands are used for activities other than pasture/hay) they arrived at the same conclusion. Given that agricultural land comprises an small overall land area and that most of these agricultural lands are used for pasture or hay, potential water quality impacts from agriculture are reduced since there is little opportunity for soil disturbance or nutrient loading from traditional row crops. They contended that most ambient water quality monitoring reports indicate "fair to excellent water quality" and monitoring sites with poor conditions are not due to agricultural activities.

The same commenters did not feel that NOAA and EPA supported their statement in the proposed decision document that water quality impacts from agriculture were widespread. They found fault with NOAA and EPA's sole reliance on NOAA National Marine Fisheries Services' (NMFS) recent listings for coho salmon and draft recovery plans (both under the Endangered Species Act). One commenter stated that the draft salmon listings and recovery plan findings are based on opinion and anecdotal evidence and are unsupported by scientific fact. Therefore, they requested that NOAA and EPA's references to the coho salmon listings and recovery plan findings as they relate to agriculture impacts to water quality be removed. Another commenter stated that NMFS's listings and plans did not support a conclusion that water quality or designated use impairments due to agriculture are "widespread." For example, the commenter reflected that the NMFS documents do not specify which land use(s) require greater buffers to adequately protect coho salmon.

However, other commenters noted that polluted runoff from agricultural activities was a significant concern and contributed to water quality degradation. They noted that Oregon must address nonpoint source pollution impacts from agriculture. (See also response to "Effectiveness of Oregon's Agriculture Programs for Achieving Water Quality Standards and Protecting Designated Uses" comment.)

Source: 13-C, 19C, 64-H, 66-H, 68-H, 70-O, 71-B, 71-F, 71-M, 84-C, 84-G

Response:

Main Points to Highlight?

- What we believe the science says about the significance of ag runoff/how widespread ag NPS problem is in the coastal mngt area. Cite specific studies to support statements.

- Refute claims about inadequacy of NMFS reports?
- Note that we have revised the ag decision rationale to provide additional support for NOAA and EPA's statements about the extent of ag pollution.

C. Effectiveness of Oregon's Agriculture Programs to Achieve Water Quality Standards and Protect Designated Uses

Comment: Several commenters expressed concern that the approaches Oregon relies on to meet the CZARA agriculture management measure requirements were not sufficient to achieve water quality standards and protect designated uses. For example, several commenters stated that the Agriculture Water Quality Management Area (AWQMA) rules were too vague to ensure water quality standards are achieved. Another commenter called out Oregon's pesticide management practices as being inadequate to meet water quality standards. One commenter stated that ODA publicly acknowledged that even 100 percent landowner compliance with the current AWQMA rules was not sufficient for achieving water quality standards. The commenters concluded that it was important for the state to include agriculture management measures that enable the state to achieve and maintain water quality standards.

Commenters provided several examples of why they believe Oregon's agriculture programs are unable to meet water quality standards and designated uses. One commenter mentioned that Tillamook Bay was closed to shellfish harvesting for 100 days of the year due to polluted runoff from dairy farms. Another commenter stated that Oregon's Water Use Basin Program failed to maintain minimum water flows, which resulted in impairments to water quality and habitat needed for sensitive and endangered species.

Several other commenters, however, stated that Oregon has developed water quality standards designed to protect designated uses (including coho salmon and other endangered or threatened fish species) and that Oregon's agriculture programs, including the AWQMA Program, are designed to ensure agriculture activities do not prevent the State from achieving those water quality standards and protecting species. One commenter cited excerpts from the North Coast Basin AWQMA rule that state, among other things: "No person conducting agricultural land management shall cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means (ORS 468B.025(1)(a))." and " No person conducting agricultural land management shall discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards establish." (OAR 603-095-0840)

Source: 46-H, 57-AA, 57-GG, 57-NN, 65-G, 66-E, 71-N, 78-F, 78-G, 83-G, 84-B

Response:

D. Effectiveness of the Agriculture Water Quality Management Area Program and Plans for Meeting the CZARA Management Measures

Comment: Several commenters expressed concern with Oregon's reliance on the Agriculture Water Quality Management Area (AWQMA) Program to meet the CZARA management measures and address

polluted runoff. However, other commenters were supportive of the program and thought it did enable the state to meet its CZARA agriculture requirements.

Commenters who believed the AWQMA Program did not satisfy the CZARA requirements were concerned that the AWQMA plans, which include the CZARA management measures for agriculture in their appendices, are voluntary. One comment cited Oregon statute and rules that state: "The rules adopted under this subsection shall constitute the only enforceable aspects of a water quality management plan" (ORS 568.912(1)) and "Area rules are the only enforceable aspect of an AWQMA plan" (OAR 603-090-000(4)). The commenters were concerned that the AWQMA rules, which provide ODA with enforcement authority for the program, do not include specific requirements consistent with the CZARA 6217(g) management measures that adequately protect water quality. They believed the AWQMA Program was not sufficient for meeting CZARA requirements because management measures must be backed by enforceable authority under CZARA. The CZARA management measures in the appendix of the voluntary plans are not enforceable.

A few commenters who participated in AWQMA planning efforts for several different coastal basins cited personal observations that supported their conclusions that the voluntary AWQMA plans lacked specific requirements to adequately protect water quality. One participant with the Mid-Coast Basin described how the planning team rejected including more specific protections for riparian buffers even though they were aware that water quality problems in the basin, such as temperature increases and bacteria contamination from livestock, were created or being exacerbated because riparian vegetation was inadequate. Another commenter who had experience with the Inland Rogue AWQMA plan stated that what was deemed an inappropriate land use practice was subjective because the plan and rules lacked specific thresholds for what was or was not an inappropriate activity.

One commenter was also concerned that ODA does not have an implementation plan, with interim milestones and timeline, in place to ensure the voluntary actions in the plans occur. Another commenter also called out the State's inability to point to significant achievements of the AWQMA Program to improve agriculture land use practices that have caused or contributed to water quality impairments. They believed that since the AWQMA plans and rules have been in place since 2007, the State should have more to show for the program by now if it was actually achieving its goals to protect and improve water quality.

Several other commenters had a different perspective. They felt that the AWQMA Program does enable Oregon to satisfy the CZARA agriculture management measures and the conditions related to agriculture that NOAA and EPA placed on its coastal nonpoint program. One commenter contended that the AWQMA plans and rules exceed CZARA requirements. The commenters stated the coastal AWQMA plans directly reference the CZARA management measures and that ODA has the authority to require the CZARA management measures and to impose additional measures, if necessary. They believed the AWQMA plans and rules provide sufficient goals, policies, and authorities, to improve water quality within coastal watersheds.

One commenter stated that the AWQMA Program includes many practices that are consistent with (or exceed) the CZARA management measures. For example, the plans and rules ensure animal wastes are placed to avoid impacts to water quality, site capable riparian vegetation is in place to reduce erosion, strict nutrient limits are established for waterways, and livestock access to waterways is limited to protect water quality and streambanks.

A few commenters objected to claims by others that the AWQMA plans and rules do not provide specific practices or requirements, such as set buffer widths. They claimed mandating such specific requirements be included in the plans or rules would be applying a "one-size-fits-all" approach which is contrary to the inherent flexibility CZARA affords. One commenter also stated that neither CZARA nor the 6217(g) guidance prescribes specific agricultural practices through the CZARA management measures.

Some commenters, who included several farmers, described how ODA works with ranchers and farmers to modify, reduce, and remove ineffective agriculture practices. They stated that farmers have worked hard to meet or exceed water quality standards by working with the State to develop AWQMA plans to set watershed goals and prioritize investments to enhance water quality. Farmers noted that they willingly participated in the AWQMA Program and voluntary programs because they had the understanding that the program and their voluntary efforts would meet all federal and state regulatory requirements for agriculture.

Commenters also noted the success of the state's AWQMA Program and voluntary efforts over the years. For example, one commenter stated between 1998 and 2012, the Oregon Watershed Enhancement Board (OWEB) contributed nearly $18 million to support coastal agriculture projects and Soil and Water Conservation Districts and landowners provided an additional $5 million in-kind support. These efforts restored over 950 linear stream miles and improved agricultural practices that impacted over 2,750 acres of farmland. In addition, the commenter also stated, that landowners voluntarily enrolled thousands of acres of farmland in federal programs designed to improve water quality.

Source: 55-E, 56-J, 57-CC, 57-EE, 64-C, 64-F, 65-B, 65-C, 65-D, 65-E, 65-F, 66-C, 66-F, 68-C, 68-F, 71-A, 71-B, 71-C, 71-G, 71-K, 71-N, 71-P, 71-Q, 71-R, 72-A, 73-A, 78-H, 78-I, 78-K, 84-D, 84-I, 84-N, 84-O

Response:

E. Need for Oregon's Agriculture Programs to Have a Greater Focus on Prevention Rather than Rely on Addressing Water Quality Impairments After They Occur

Comment: A few commenters asserted that the AWQMA Program and plans only focused on areas with known water quality impairments. They felt that the AWQMA Program did not provide sufficient protection of more pristine areas to prevent them from becoming degraded. They stated by focusing on impairment rather than protection, ODA is allowing polluting practices to occur for many years until water quality becomes degraded and is documented through a TMDL. Commenters were also concerned that the AWQMA plans do not require restoration, especially pertaining to riparian buffers surrounding former agricultural sites. (*See also discussion under Agriculture-Buffer and Agriculture-Legacy Issues comments.*)

On the contrary, a few other commenters disagreed with NOAA and EPA's statement in the proposed decision rationale that AWQMA plans focused primarily on impaired areas. They stated that landowners are generally expected to protect water quality, not just impaired waters. They believed that ODA implements controls through the AWQMA Program to address sources of existing impairments as well as prevent polluted runoff elsewhere. One commenter provided a specific example of the North Coast Basin rules (OAR 603-095-0840) to illustrate how the standards address impaired areas as well as

provide protection and restoration benefits. Another commenter also felt that ODA was coordinating well with DEQ to ensure continued integrity of the AWQMA Program and plans and ensure that landowners have the tools and adaptive approach to address polluted runoff.

Source: 46-H, 55-F, 80-I, 84-A, 84-D, 84-M, 84-P

Response:

F. Effectiveness of Oregon Department of Agriculture's Enforcement of Agriculture Programs

Comment: Several commenters stated they were concerned with ODA's lack of enforcement of its AWQMA rules and other agricultural rules. Other commenters did not believe there was an enforcement problem. They argued that CZARA does not require states to take specific enforcement action to receive approval. Rather, states only need to have management measures in place, backed by enforcement authority, which they believed Oregon has done.

Commenters that were concerned about enforcement of Oregon's agriculture programs believed Oregon's complaint-driven enforcement approach was not sufficient and that the state was not using its enforcement authorities when voluntary agriculture approaches fail to protect water quality. For example, one commenter, who is an agricultural landowner and a member of an AWQMA local advisory committee, discussed how the committee was informed that the AWQMA plan would be complaint driven and compliance was voluntary. The commenter questioned the effectiveness of this approach for protecting water quality and designated uses when ODA only issued three fines over the last eleven years.

One commenter felt ODA worked to protect the agriculture industry more than implement the authorities it has to protect water quality. As a result, enforcement was only taken for very egregious cases and even then, it proceeded slowly. Another commenter also stated how difficult it could be to get ODA to take action on a complaint since only signed complaints actually triggered an investigation. Another commenter asserted that polluted runoff from agriculture was difficult to control because most agricultural activities were exempted from the same Clean Water Act standards. Over all, these commenters believed ODA's lax enforcement has allowed agriculture activities to continue to cause and contribute to water quality and designated use impairments.

In addition, one commenter also was concerned that ODA lacks an implementation plan to ensure that voluntary implementation of the AWQMA plans and other voluntary efforts occur. They noted that the implementation plan should include a proactive approach to enforcement (i.e., not rely entirely on a complaint-driven approach) and an enforcement response plan to ensure proper enforcement procedures and corrective actions are triggered when voluntary agricultural efforts are not being implemented or when voluntary approaches are not successfully protecting water quality.

Other commenters provided an opposing view. They argued that most agricultural landowners comply with existing water quality management rules and meet relevant CZARA requirements. They asserted that Oregon has a process in place to effectively address noncompliance issues and that ODA has the ability to enforce the AWQMA program and ensure compliance with water quality requirements.

They refute claims by others that few ODA enforcement actions over the years demonstrate that ODA does not have the ability and/or will to enforce the AWQMA program and ensure water quality is protected. On the contrary, the commenters noted that when a problem is identified, ODA first works closely with the noncompliant landowner to make necessary land use changes voluntarily before turning to enforcement. Therefore, they explained that most issues are corrected before a formal enforcement action is needed. Commenters also highlighted the existing review and monitoring processes ODA has enacted to track program "implementation and effectiveness". (See also discussion for "Agriculture-Monitoring and Tracking" comment.)

As noted above, they also contended that while CZARA requires the State and its agencies to have enforcement authority for the CZARA management measures. One commenter stated that CZARA does not require states to take a certain number of enforcement actions or meet a specific enforcement threshold. They believe that not only does ODA have suitable enforcement authority but the state's July 2013 coastal nonpoint program submission, which provided examples of several agriculture enforcement actions, demonstrates that ODA has used its authority to enforce the AWQMA rules, where necessary and appropriate.

Source: 41-C, 46-H, 53-E, 54-K, 55-I, 55-D, 56-J, 56-K, 78-J, 80-F

Response: NOAA and EPA recognize there are concerns about how well Oregon is enforcing its agriculture programs, including the AWQMA Program. NOAA and EPA also express concern about the state's enforcement of the AWQMA Program in the final decision document. NOAA and EPA continue to encourage the state to improve enforcement and tracking of the AWQMA Program and to ensure the state is using its authority under the AWQMA Program to the fullest to protect water quality and designated uses. However, under CZARA, NOAA and EPA cannot consider how well a state is enforcing a particular program for coastal nonpoint program approval, only whether or not the state has processes in place to implement the CZARA 6217(g) measures. (See response to Comment IV.C (Enforcement) for fuller discussion of this issue).

G. Inadequacy of Oregon Water Resources Department's (OWRD) Water Use Basin Program for Meeting Irrigation Management Measure

Comment: One group commented that the Oregon Water Resources Department's (OWRD's) Water Use Basin Program is inadequate for meeting CZARA requirements for agriculture. They suggested that NOAA and EPA were incorrect when finding that OWRD's Water Use Basin Program supports the irrigation measure and reiterated that Oregon's Basin Programs do not ensure that water quality and habitat for sensitive and endangered species will not be impaired. They urged EPA and NOAA to look closely at the deficiencies of the Basin Programs before attributing any water quality or fish habitat protection value to them as a measure in support of Oregon's agricultural conditions. They added that Oregon's rules provide no assurance that water use will be adequately limited to maintain minimum flows and that teh Basin Programs fail, in practice, to protect minimum perennial streamflows and instream rights held by OWRD for the protection of aquatic wildlife and water quality. They concluded that EPA should disapprove Oregon's agricultural measures and acknowledged the lack of protection offered by Oregon's Water Use Basin Programs for preservation of aquatic life and designated uses in the agencies' final determination.

Source: 65-B, 65-C, 65-D, 65-E, 65-F, 65-G

Response:

H. Agriculture Riparian Buffers

Comment: Various commenters noted the importance of, and need for, adequate agricultural riparian buffers along both fish and non-fish bearing streams. They stated the buffers were important to protect water quality, including cold water temperatures needed for the recovery and health of native salmon. The commenters felt that Oregon currently lacks appropriate riparian management practices for agriculture lands to help meet water quality standards and to protect coho salmon, amphibians, and drinking water. In addition, a commenter pointed out that ODA's remote sensing monitoring of riparian areas has shown little improvements in buffers despite implementation of the AWQMA Program and other agriculture programs.

Several commenters provided specific examples of Oregon's poor riparian buffer management. For example, several commenter contended that management measures in Oregon's agricultural plans are deficient to provide protection of stream banks, bank stability, and the destruction of riparian areas by livestock. They explained that stream banks are key to protecting water bodies from elevated sediment delivery that affects levels of turbidity and fine sediment in streams and eroding stream banks contribute to temperature increases, reduce large woody debris to streams, which is critical to salmonid recovery, and contribute to nutrient and pesticide delivery from upslope agricultural activities.

Another commenter spoke about their experience serving as an advisory member to the Mid-Coast Basin AWQMA Advisory Committee during its local area planning in 2009. They explained that when specific buffer proposals were presented to the committee, "All of the specific proposals for riparian protection were rejected by the committee, despite their knowledge of specific water quality problems in the basin created or exacerbated by inadequate riparian vegetation, including stream temperature problems and bacterial contamination from livestock."

A few commenters also discussed how the AWQMA rules do not require active restoration of suitable riparian vegetation. Rather the rules only prohibit agricultural activities from preventing the natural re-establishment of "site capable" riparian vegetation that often results in the establishment of invasive species, like blackberries, along the riparian zone that do not provide the same water quality protection and habitat value as native vegetation.

However, other commenters stated Oregon's current riparian management practices were sufficient for meeting CZARA requirements. Commenters asserted the AWQMA rule did provide for protection of riparian areas and stated that if a violation occurred, i.e. agricultural activities inhibit establishment of riparian vegetation, the livestock would have to be removed or managed appropriately. A commenter provided an example of several North Coast Basin AWQMA rule requirements, such agriculture management activities must be conducted in a way to maintains stream bank integrity through 25-year storm events and minimize the degradation of established native vegetation while allowing for the presence of nonnative vegetation.

The commenter refuted others' claims that the "site capable" vegetation that the rules required was not effective at protecting water quality. They asserted that "site capable" vegetation plays an important role at filtering pesticides from runoff before it enters surface waters. Commenters also pointed out that

farmers and ranchers implemented many practices to protect and restore riparian vegetation such as installed miles of piping for livestock watering, and planted and fenced many miles of stream banks. In addition, commenters stated that there is no requirement in CZARA or Section 6217(g) requiring specific riparian buffers on agricultural lands and that NOAA and EPA provided no concrete evidence in their proposed decision document to demonstrate why Oregon needed to improve its management of agriculture riparian buffers to meet CZARA requirements. One commenter did not believe the NMFS reports NOAA and EPA cited in the proposed decision document specified that agriculture land use as a reason better riparian buffers were needed to protect coho salmon.

Source: 15-H, 44-F, 49-G, 55-E, 55-H, 57-SS, 57-XX, 57-YY, 57-ZZ, 71-H, 71-R, 71-W, 71-AI, 71-AJ, 72-A, 78-G, 78-F, 81-A, 83-E, 83-F, 83-L, 84-G, 84-O

Response:

I. Agriculture Pesticide Management

Note: Comments specifically related to pesticides and agriculture are summarized and responded to here. However, NOAA and EPA received general comments on pesticide management as well as specific pesticides related to forestry. Please see Pesticides-General and Forestry-Pesticides for a full discussion of the comments received related to pesticides.

Comment: Commenters expressed concerns with the amount of pesticide application and the lack of management measures in place to address agricultural pesticide use in Oregon. They stated inappropriate pesticide use and controls impacted both human and environmental health. Commenters concluded that Oregon's management measures for pesticides are not adequate to meet water quality standards or support designated uses and additional management measures to address pesticides are needed. Commenters asserted that Oregon needs to improve upon both its application restrictions, providing greater controls on spraying in coastal watersheds, and to improve its protections for all stream classes.

Commenters provided specific examples to support their belief that agriculture pesticide management was inadequate. For example, members of AWQMA local advisory committees relayed that the committees were advised to not even consider pesticides as a pollutant. Therefore, they questioned if the AWQMA Program is sufficient to meet the CZARA 6217(g) management measure requirements. Another commenter referred to an herbicide monitoring study that found that polluted runoff resulted from herbicide applications on agricultural lands, as well as other sources.
In addition, other commenters stated that Oregon does not have sufficient programs in place to monitor pesticide use and impacts. They argued that unknown and unmonitored uses, along with unmonitored health and environmental risks associated with pesticides contribute to the inadequacy of Oregon's program. While another commenter contended that because most risk assessments for pesticides are based on old and incomplete data and endpoint evaluations, pesticide management measures should require re-evaluations of endpoints and health and environment impacts. In addition, they believed that risk assessments should also include testing of inert ingredients found in pesticide products.

One commenter also stated that NOAA and EPA's rationale for agriculture in the proposed decision document does not make any findings about the adequacy of Oregon's program to protect water quality and designated uses from pesticides applied to agricultural lands.
However, not all commenters believed Oregon's agriculture pesticide management program was inadequate. Other commenters stated that Oregon does have appropriate management practices and rules in place. A commenter pointed out that Oregon law already encompasses all 6217(g) requirements for pesticide management. All landowners are required to follow pesticide label requirements under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") and follow ODA's pesticide rules. These rules, coupled with the state's Pesticide Stewardship Program, CAFO, and AWQMA Programs allow the State to address any agricultural pesticide issues. In addition, a commenter mentioned that the AWQMA Program's site capable vegetation requirement for riparian areas filters pesticides from runoff before they enter waterways. Also, because applying pesticides costs money, farmers have an economic incentive to use them judiciously and keep pesticides where they are applied.
Source: 28-D, 38-A, 46-H, 54-B, 54-D, 54-G, 54-H, 54-L, 54-M, 54-N, 54-O, 54-P, 54-Q, 54-R, 54-S, 57-GG, 57-HH, 58-G, 59-A, 71-AH, 71-AI, 71-AJ, 71-AK, 72-A, 81-B, 83-A, 83-E, 83-M

Response:

I. Combined Animal Feeding Operations

Comment: A few commenters expressed concerns with Oregon's track record at regulating livestock practices. They suggested that Oregon does not even have agriculture management measures in place to adequately regulate combined animal feeding operations (CAFOs). One commenter suggested additional agriculture management measures were needed to improve permitting, monitoring, and relocation of CAFOs.

One commenter pointed out that enforcement of CAFO and other livestock management measures is problematic in Oregon. Inadequate enforcement contributes to degraded water quality. For example, commenters referenced many examples of actual water pollution from livestock, including fecal waste from cows floating in waterways. They described instances where complaints against CAFOs have been submitted repeatedly to ODA but they received no response or resolution to their complaints.

On the other hand, other commenters explained that Oregon's existing requirements relating to managing CAFOs are adequate to maintain water quality and disagreed that additional management measures are needed. They stated that ODA's rules require landowners to evaluate fertilizer efficiency, assess the layout of their farms and storage facilities, locate potential areas where runoff could contact nutrient carrying substances and relocate or avoid placing storage there.

In addition, they stated that CAFOs are subject to state-wide NPDES permits and are therefore exempt from 6217(g). Moreover, they contended that landowners still go beyond what is required in the 6217(g) CAFO management measures by ensuring there is no discharge to water; runoff is stored and covered; and waste and runoff nutrient levels, temperature, amount of time stored, and time and quantity of land application of manure at agronomic rates are measured and monitored.

Source: 15-F, 15-H, 60-C, 71-Y, 71-Z, 71-AE, 81-B

Response: In 1998, NOAA and EPA placed the following conditions on Oregon's coastal nonpoint program related to the CZARA 6217(g) management measures for large and small CAFOs: "include in its program management measures in conformity with the 6217(g) guidance for facilities where animals are confined for less than four months and that do not have prepared surfaces or waste water control facilities…[and] provide a strategy… for use of the state's water quality law (ORS 468B) as a back-up enforceable mechanism to ensure implementation of the management measures for confined animal facilities." As NOAA and EPA more fully explain in the final decision document, the federal agencies find that after changes were adopted to ORS 468B and OAR 603-074, they are now consistent with the CZARA 6217(g) management measures for large and small CAFOs.

Ex. 5 - Deliberative

J. Agriculture Grazing Management

Comment: A few commenters provided comments specifically on the adequacy of Oregon's Coastal Nonpoint Program in addressing the 6217(g) grazing management measure. Several commenters believed the 6217(g) management measures, themselves, were flawed and did not provide adequate protection of water quality. They stated that as written, the grazing management measure allows for broad interpretation that can result in the adoption of ineffective grazing management approaches that do not protect or restore riparian vegetation and do not provide stream shading, as they believed was the case in Oregon. For example, they did not believe the 6217(g) management measure requirement to provide salt and water for livestock away from riparian zones was effective. In addition, the commenter criticized the 6217(g) measure for not requiring a halt to grazing in riparian areas during the summer.

However, other commenters supported Oregon's grazing practices. They felt the AWQMA Program is consistent with the 6217(g) grazing management measure and protects stream banks and water sources from grazing activities. They point out that AWQMA rules limit the amount of time livestock have access to waterways. In addition, the rules do not allow agricultural activities, including grazing, to inhibit the growth of site capable of riparian vegetation. If there a violation of this restriction, livestock would need to be removed or managed more appropriately.

Source: 57-YY, 71-AG, 71-AH, 71-AI

Response:

K. Need for Additional Management Measures for Agriculture

Comment: Multiple commenters noted that Oregon needed to implement additional management measures for agriculture to meet water quality standards and to protect designated uses. One commenter specifically asserted that the existing agriculture management measures do not protect waterbodies from temperature pollution. They stated that temperature pollution is the most pervasive water quality problem in coastal lowland streams and that elevated temperatures can also impact salmonid productivity. They concluded that it is very likely agriculture activities are contributing to temperature standard violations because for most TMDLs, the allowable temperature increases for nonpoint source pollutants is zero. They stated that none of the AWQMA rules for Oregon coastal watersheds, incorporate additional management measures needed to meet the zero load allocations established in the temperature TMDLs.

Commenters suggested specific additional management measures to protect water quality. For example, to address temperature pollution, several comments reflected that minimum riparian buffer widths need to be established. One commenter stated that published literature suggested that the minimum width should be no less than 100 feet (30 meters) and that greater than 100 foot buffers may be needed in certain areas, such as low gradient meandering channels that are adjacent to designated critical habitat for listed species. Another commenter believed that specific height and density requirements also needed to be established for riparian vegetated buffers.

Other additional management measures that commenters identified included: adopting better pesticide management; fencing streams and riparian areas to reduce impacts by livestock; improving permitting, monitoring and relocation of CAFOs; and adopting regulatory provisions to promote the establishment of riparian vegetation in critical habitat areas and the reintroduction of beaver in suitable locations. One commenter expressed their concern over diminishing beaver because they are being trapped and hunted out. They note that beavers play an important role in maintain natural stream channels, wetlands, and complex floodplains.

On the other hand, several other commenters asserted that additional management measures for agriculture were not needed. The commenters noted that EPA and NOAA have not provided specific data or information that would support the need for additional management measures. They also noted that CZARA does not require states to implement specific practices, such as specific requirements for agricultural riparian buffers or the restoration of lands to pre-agricultural uses.

In addition, they assert that CZARA does not give NOAA and EPA the authority to place specific additional management measure requirements on a state's program. Rather, they state that the CZARA guidance notes that it is the state's responsibility to identify when, where, and what additional management measures are needed. (See discussion under General-Additional Management Measures for response to this specific comment).

Source: 15-H, 23-B, 44-C, 44-F, 44-G, 47-B, 56-M, 57-CC, 57-EE, 57-GG, 57-XX, 60-A, 60-E, 64-E, 66-E, 68-E, 71-E, 71-H, 71-I, 84-I

K. Economic Achievability of Agriculture Management Measures

Comment: A few commenters emphasized that CZARA requires that all management measures must be "economically achievable" (Section 6217(g)(5)). Therefore they asserted that it would be inconsistent with CZARA to require landowners to implement management measures that are not "economically achievable." They stated that Oregon's AWQMA Program is rooted in implementing economically achievable agriculture practices, consistent with CZARA statutory requirements. On a related note, another commenter also stated that the more voluntary-based approaches, backed by enforceable authorities, Oregon employs to support implementation of its 6217(g) agriculture management measures are more cost-effective because they allow the landowner the flexibility to select the right best management practice for his or her specific site conditions.

Sources: 64-E, 64-I, 66-E, 66-I, 68-E, 68-I, 71-H, 84-L

Response: Yes, the commenters are correct that the CZARA management measures need to be economically achievable. Specifically, CZARA defines management measures to be "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives" (Section 6217(g)(5)). In developing the CZARA 6217(g) management measures, EPA determined that "all of the management measures in [the] guidance are economically achievable, including, where limited data were available, cost-effective." (See EPA. 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters,* pg. 1-13.)

When evaluating a state's coastal nonpoint program, the federal agencies do not consider if one approach is more cost-effective than another, only that the approach the state proposes meets the CZARA 6217(g) management measure requirements.

L. Addressing Agriculture Legacy Issues

Comment: A few commenters expressed their concern about legacy agriculture issues, such as where riparian vegetation may have regrown on former agricultural land but is comprised largely of invasive species (i.e., blackberry brambles) and does not provide sufficient protection of stream water quality or create quality habitat. They criticized the AWQMA Program as not doing enough to address legacy issues. They stated that the AWQMA Program does not require active restoration--only removal of current practices that impair restoration. The commenter contended that this creates a gap that must be addressed if Oregon is going to meet its water quality standards. They believed that Oregon needed to adopt additional management measure requirements to address this legacy issue.

Another commenter believed ODA has the authority needed to take action against legacy issues, they did not believe the agency had the political will to do so.

Several other commenters opposed the statement NOAA and EPA made in the proposed decision findings that AWQMA planning and enforcement does not address "legacy" issues created by agriculture activities that are no longer occurring. They stated that neither CZARA nor the 6217(g) guidance define

legacy issues or require that state coastal nonpoint programs to address legacy issues. They asserted that nothing within CZARA indicated Congress ever intended for states to consider "legacy" issues through their coastal nonpoint programs.

They stated that even though there is no CZARA requirement to address legacy agriculture issues, Oregon does have a process in place to identify opportunities to enhance and restore watersheds, including address "legacy" agriculture issues. They assert state invests money to address these issues addresses these issues through a variety of programs such as the Oregon Plan for Salmon and Watersheds, the Oregon Aquatic Habitat Restoration and Enhancement Guide, the Oregon Watershed Enhancement Board riparian restoration projects, AWQMA plans, and many other federal, public and private partnerships. The commenter states these programs are successful due to the voluntary efforts of many Oregon agriculture landowners.

Another group contended that NOAA and EPA contradicted themselves in regard to legacy agriculture issues in the proposed decision document. They noted the federal agencies made a finding that legacy effects were not addressed through existing regulatory tools but then concluded that agriculture plans were a regulatory mechanism to address past actions that are the primary cause of eroding stream banks.

Source: 15-H, 44-F, 55-I, 57-X, 71-T, 80-I, 84-J, 84-K

Response: First, NOAA and EPA would like to clarify what appears to be some confusion around the statements made in the December 20, 2013, proposed findings document. The statement in the proposed findings document that noted that the AWQMA Program does not address "legacy" issues was not a finding of NOAA and EPA. Rather, the bulleted list on page 14 of the proposed findings document relays concerns the federal agencies have heard others express regarding Oregon's agriculture practices, including the AWQMA Program's ability to address "legacy" issues. The concerns listed were not necessarily the views of NOAA and EPA.

NOAA and EPA disagree with the comment that statements the federal agencies made in the proposed findings document contradict one another. The commenter believed that NOAA and EPA's 2004 informal interim approval of the erosion and sediment control management measure conflicted with the statement that AWQMA planning and enforcement does not address "legacy" issues created by agriculture activities that are no longer occurring. First, as explained in the above paragraph, the statement in the proposed decision document about the adequacy of Oregon's agriculture programs to address "legacy" issues was relaying concerns expressed by others; it did not necessarily reflect the views of the federal agencies. Second, the CZARA 6217(g) guidance notes that management measure for erosion and sediment control is "intended to be applied by states to activities that cause erosion on agricultural land and on land that is converted from other land uses to agricultural lands." The management measure is not designed to address past agriculture actions that are causing erosion on land that is no longer used for agriculture. Therefore, the federal agencies' 2004 informal interim approval of the erosion and sediment control management for agriculture, which is not a definitive finding or decision, in no way asserts the state has programs in place to address "legacy" issues on former agriculture land.

NOAA and EPA recognize that the "legacy" impacts of agriculture, such as riparian areas dominated by invasive species that provide poor habitat value and may not protect streams from polluted runoff and

erosion as effectively as native vegetation is a concern. The federal agencies strongly encourage Oregon to include more specific language in the AWQMA rules and plans about the need to restore riparian areas and address other legacy issues that may result from past agricultural activities. The state should also use existing voluntary programs such as OWEB, to target these issues.

M. Effectiveness of Existing Monitoring and Tracking Programs for Agriculture

Comment: Several commenters expressed their concern with Oregon's existing monitoring and tracking efforts to evaluate the effectiveness of its agriculture programs. They did not believe they were sufficient to understand how well existing management approaches are being implemented, how effective those approaches are at protecting and restoring water quality, and when adaptive approaches are needed. A few commenters did acknowledge that ODA's new strategy for more targeted water quality monitoring is a step forward, but they also believed a more robust monitoring and tracking program was needed for agriculture. One commenter asserted that a State independent science team found ODA's proposed monitoring plan lacked detail and focus and lacked an understanding of basic monitoring.

Several commenters specifically stated that ODA does not effectively track implementation and effectiveness of AWQMA plans. A commenter suggested that Oregon needed to include an overall compliance strategy to ensure that AWQMA plans and rules are adequately implemented to meet TMDL load allocations and water quality standards. They added that there must be a policy and proactive process to assess AWQMA plan and rule implementation and for taking appropriate enforcement action when violations occur.

Another commenter stated there was a significant gap in the existing science to understand the effectiveness of Oregon's agricultural practices in protecting water quality and designated uses. They noted that the State cannot move forward with stronger agriculture regulations without first having a good understanding of how its existing programs are falling short and what improvements are needed to ensure water quality standards are being met.

On the other hand, other commenters believed the State's existing monitoring and tracking efforts were effective at assessing implementation of agriculture practices. Specifically they noted that biennial reviews of the AWQMA plans, with about 18 reviews done each year, provide a way to track plan implementation. They also highlighted the State's efforts to develop a more formalized evaluation processes through the Strategic Implementation Areas and Focus Areas process to target priority areas and issues. They also stated the State's new Enterprise Monitoring Initiative, which began in 2012, monitors waterways passing through agriculture lands and can be used to inform the effectiveness of the AWQMA program. In addition, a commenter asserted that most ambient water quality monitoring in the coastal region reported fair to excellent water quality and sites with poor conditions were not due to agriculture activities.

Source: 46-H, 49-I, 53-E, 53-H, 54-R, 55-G, 55-H, 57-11, 70-B, 70-F, 70-K, 70-L, 71-O, 71-S, 71-Z, 72-A, 73-A, 78-H, 79-I, 80-F, 80-G

Response:

XI. HYDROMODIFICATION

Comment: A couple of commenters discussed the negative impacts of hydromodification, noting the effects of dams on water quality and habitat and impacts from channel modification. They declared that Oregon has failed to control polluted runoff from eroding stream banks and shorelines and it does not have programs in place to protect and restore channel conditions from modification.

Source: 46-H, 49-F

Response: NOAA and EPA recognize commenters are concerned about the adverse impacts of hydromodifications along waterways in coastal Oregon. However, NOAA and EPA did not propose to find the state has failed to submit a fully approvable coastal nonpoint program based on the approvability of the hydromodification management measures and did not solicit comment on this issue at this time. The public will have an opportunity to comment on the hydromodification management measures of Oregon's Coastal Nonpoint Program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program.

XII. WETLANDS

Comment: One commenter noted that Oregon does not have programs in place to protect and restore riparian areas needed to maintain cool stream temperatures and habitat or to protect and restore wetlands.

Source: 49-F

Response: NOAA and EPA recognize commenters are concerned that Oregon may not have programs in place to protect and restore riparian areas and wetlands. However, NOAA and EPA did not propose to find the state has failed to submit a fully approvable coastal nonpoint program based on the approvability of the broad wetlands and riparian area management measures and did not solicit comment on this issue general issue (outside of riparian protection for forestry and agriculture

activities) at this time. The public will have an opportunity to comment on the general wetland and riparian management measures of Oregon's Coastal Nonpoint Program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program. (See specific comments about the adequacy of riparian protection in relation to forestry in agriculture activities, and NOAA and EPA's responses to those comments, under the Forestry and Agriculture sections above).

Summary of NOAA and EPA Response to Comments Regarding the Agencies' Proposed Finding that Oregon has Failed to Submit a Fully Approvable Coastal Nonpoint Program

Contents

Comment [AC1]: Who's Got What:

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- Forestry Monitoring-??
- Forestry Clear Cuts-??

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Hydromod-**Allison**
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I. BACKGROUND

On December 20, 2013, the National Oceanic and Atmospheric Administration (NOAA) and the Environmental Protection Agency (EPA) announced a 90-day public comment period in the Federal Register, with regard to the agencies' intent to find that Oregon has failed to submit an approvable coastal nonpoint pollution control program (coastal nonpoint program) pursuant to Section 6217 of the Coastal Zone Act Reauthorization Amendments. The proposed findings document explained the federal agencies' rationale for this proposed decision.[1]

Section 6217(a) of the Coastal Zone Act Reauthorization Amendments (CZARA), 16 U.S.C. section 1455b(a), requires that each state (or territory) with a coastal zone management program previously approved under section 306 of the Coastal Zone Management Act must prepare and submit to the federal agencies a coastal nonpoint pollution control program for approval by NOAA and EPA. For states with coastal zone management programs that were approved by NOAA prior to 1991, coastal nonpoint programs were to be submitted for approval by July 1995. Oregon submitted its coastal nonpoint program to the federal agencies for approval at that time. The federal agencies provided public notice of and invited public comment on their proposal to approve, with conditions, Oregon's coastal nonpoint program (62 FR 6216). The federal agencies approved the program by letter dated January 13, 1998, subject to the conditions specified in the letter (63 FR 11655).

Over time, Oregon made incremental changes to its program in order to satisfy the identified conditions. However, in the December 20, 2013, proposed findings document, NOAA and EPA determined that Oregon has not addressed all conditions placed on its program. Therefore the federal agencies proposed to find that the state has not submitted a fully approvable coastal nonpoint program.

NOAA and EPA's proposed findings focused on three conditions placed on Oregon's program—new development, onsite sewage disposal systems (OSDS), and additional management measures for forestry. In addition to seeking public comment on these proposed findings, the federal agencies also sought public comment on the adequacy of the State's programs and policies for meeting the 6217(g) agriculture management measures and conditions. The specific agriculture questions NOAA and EPA asked the public to respond to were: (1) Has the State satisfied the agriculture conditions placed on its coastal nonpoint program?; and (2) Does the State have programs and policies in place that provide for the implementation of the 6217(g) agriculture management measures to achieve and maintain water quality standards and protect designated uses?

NOAA and EPA received 85 comments during the 90-day public comment period.[2] Nearly all comments were unique; only three comments were identical. The majority of commenters (46) supported NOAA and EPA's proposed decision while 24 opposed the proposed decision. Of the commenters that opposed the proposed decision, 15 did so because they believed Oregon had either fully met its CZARA obligations or just needs more time, whereas nine opposed on the grounds that NOAA and EPA should not withhold federal funding (a statutory consequence of finding that the state has failed to submit a

Comment [WD2]: I am not checking this #; assuming it's correct.

Comment [AC3R2]: I pulled this para. from our Dec. 20 FR so assuming whoever put inserted it there (I believe it was Steve) did their homework.

Comment [WD4]: I am not checking this #; assuming it's correct.

[1] See http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/OR%20CZARA%20Decision%20Doc%2012-20-13.pdf for NOAA and EPA's proposed finding on Oregon's Coastal Nonpoint Program.

[2] See http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/publicComments.html to view all comments received and who provided comments.

fully approvable coastal nonpoint program), although most acknowledged the State needs to do more to protect water quality. The remaining 15 commenters did not offer a specific opinion on the proposed decision although commented on specific aspects of coastal nonpoint source pollution management in Oregon; the majority believed the state needed to do more to protect coastal water quality.

As a result of the comments received, including comments and an updated coastal nonpoint program submittal from the state, NOAA and EPA find that Oregon has failed to submit an approvable coastal nonpoint program under Section 6217 of the Coastal Zone Act Reauthorization Amendments.[3]

This document provides a summary of the public comments received and NOAA and EPA's response to those comments.

Comment [WD5]: Did all 9 of the commenters who were against penalties mention that OR needed to do more to protect WQ?

Comment [AC6R5]: Most did but there were 1 or 2 that did not say that specifically so revised to read "most acknowledged…"

Comment [WD7]: Please verify. 15 = 85 – 70 (70 commenters = 46 support + 24 oppose)

Comment [AC8R7]: Yep. That's what it says in the para.

II. GENERAL COMMENTS

A. Proposed Decision

Comment: The majority of commenters supported NOAA and EPA's proposed finding that Oregon has failed to submit a fully approvable coastal nonpoint program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). In addition to specific concerns addressed in other sections below, commenters noted that 16 years after receiving conditional approval for its coastal nonpoint program, Oregon still does not have a fully approvable program in place~~, as determined by NOAA and EPA,~~ to control polluted runoff to coastal waters and protect designated uses, nor has the state adopted additional management measures for forestry where water quality impairments and degradation of beneficial uses attributable to forestry exist despite implementation of the CZARA management measures developed under Section 6217(g)~~, as determined by NOAA and EPA~~. A number of commenters also noted that the state failed to follow through on its 2010 commitments to NOAA and EPA to address three remaining conditions on its program related to new development, septic systems, and forestry by March 2013—commitments NOAA and EPA used to inform their settlement agreement deadlines with the Northwest Environmental Advocates.

Comment [AC9]: Commenters really didn't state this so if we want to make sure we're capturing what the commenters said, propose deleting.

Comment [AC10]: Again, the commenters didn't make this distinction so propose to delete.

Comment [CJ11]: Not sure where this date comes from.

Comment [AC12R11]: It comes from the comment. OR had commited to completing all parts of this program by March 2013 to give us time to (in theory) announce proposed approval by Nov. 2013 per settlement agreement.

While some commenters agreed that Oregon needs to do more to improve water quality, they did not agree with NOAA and EPA's proposed decision because they opposed withholding federal funding under CZMA Section 306 and CWA Section 319 (see Funding Section below for more discussion on this issue).

A few commenters noted NOAA and EPA should continue to work with Oregon to improve its water quality programs and that the state just needed additional time to meet the CZARA requirements.

Other commenters opposed NOAA and EPA's proposed finding. They stated Oregon does have adequate programs in place to meet or exceed the CZARA requirements. More specific comments are discussed in sections below.

Source: 1-C, 2-B, 4-A, 5-A, 8-B, 9-A, 13-A, 14-A, 14-C, 15-A, 16-B, 17-A, 19-B, 22-A, 22-C, 23-A, 24-A, 25-A, 25-B, 26-B, 28-A, 30-A, 30-B, 30-H, 31-A, 33-A, 33-B, 34-A, 35-A, 36-A, 36-B, 36-C, 37-B, 37-C, 37-D, 40-A, 41-A, 42-A, 42-B, 43-A, 44-A, 44-B, 46-A, 47-A, 48-B, 49-A, 53-A, 52-A, 54-A, 55-B, 56-C, 57-A, 64-B, 64-D, 66-B, 66-D, 68-B, 68-D

Comment [CJ13]: Is this for internal purposes or will we be releasing the comments table?

Comment [AC14R13]: Internal purposes only. We'll delete all source info (or at least the comment # before we release).

[3] See [date] final decision document on Oregon's Coastal Nonpoint Program at ***.

Response: NOAA and EPA appreciate the many comments received in response to the federal agencies proposed decision to find that Oregon has failed to submit an approvable program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA). After carefully considering all comments received and the state's March 20, 2014, response to the proposed decision, NOAA and EPA continue to find that Oregon has failed to submit an approvable program. As described more fully in the final decision memorandum, although Oregon has made tremendous progress in addressing many of the original conditions placed on the state's program, the state has not met the conditions related to **** [add statement of where Oregon's program falls short]. Therefore, NOAA and EPA find that the state has failed to submit a fully approvable program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA).

Comment [WD15]: We are not consistent with this capitalization. I vote for keeping it lower case. If our management overrules this, we need to go back and clean this up consistently throughout the document.

Comment [AC16]: I don't support deleting this sentence. I think it's important for us to state this very clearly.

Comment [WD17R16]: I agree.

Per the statute, beginning with FY 2015 federal funding, NOAA will withhold 30 percent of funding for Oregon under Section 306 of the Coastal Zone Management Act that supports implementation of the state's coastal management program and EPA will withhold 30 percent of funding for Oregon under Section 319 of the Clean Water Act that supports implementation of the state's nonpoint source management program.

Although some commenters would prefer NOAA and EPA provide Oregon with additional time to develop a fully approvable program and not withhold funding to the state, based on the CZARA statute the settlement agreement with the Northwest Environmental Advocates, NOAA and EPA do not have that flexibility. The Northwest Environmental Advocates sued NOAA and EPA in 2009 challenging the agencies' failure to take a final action on the approval (without conditions) or disapproval of Oregon's coastal nonpoint program and failure to withhold funds from Oregon for not having a fully approved program. NOAA and EPA settled the lawsuit in 2010 and agreed make a final decision on the approvability of the program by May 15, 2014, (extended to January 30, 2015, by mutual agreement of the settlement agreement parties).

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B. State Legislature Has Been Obstructing ODEQ's Ability to Make Changes

Comment: One commenter stated that the Oregon Department of Environmental Quality (DEQ) has been working hard to get the improvements needed to improve water quality and meet all coastal nonpoint program requirements. However the State Legislature has been obstructing DEQ's progress and is the one that needs to take action.

Source: 25-C

Response: The federal agencies' final determination on Oregon's program is not based on opinions about whether the state legislature has been "obstructing" progress. NOAA and EPA have been working closely with DEQ, the Department of Land Conservation and Development (DLCD), and other agencies to complete the development of the state's coastal nonpoint program. We commend the agencies for the changes they have made to strengthen Oregon's coastal nonpoint program and address many of the remaining conditions. ~~on Oregon's and to meet all coastal nonpoint program requirements.~~

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Ex. 5 - Deliberative

Ex. 5 - Deliberative

~~The federal agencies' final determination on Oregon's program is not based on whether or not any state entity has been reportedly "obstructing" progress.~~

Ex. 5 - Deliberative

C. Federal and State Governments Have Responsibility to Manage Waters

Comment: One commenter stated that the Federal and state governments have a responsibility to manage waters in the public trust for maximum long-term benefit for current and future generations. They noted this was not being done.

Source: 22-C

Response: Federal and state governments do have a responsibility to manage public waters for current and future generations. Congress created CZARA as a tool for NOAA and EPA, along with our state partners, to use to help protect coastal waters. NOAA and EPA strive to carry out these responsibilities within the constructs of federal statute and associated guidance. Ex. 5 - Deliberative

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Comment [CJ22]: May need to expand on why the commenter believed "this was not being done"

Comment [AC23R22]: The commenter didn't expound on their reasoning. They just said it wasn't being done.

Ex. 5 - Deliberative

III. FUNDING

A. Impacts of Withholding Funds

Comment: Commenters recognized that withholding funds under Section 306 of the Coastal Zone Management Act (CZMA) and Section 319 of the Clean Water Act (CWA) could negatively impact Oregon's ability to improve quality and support beneficial programs such as Total Maximum Daily Loads (TMDLs), Oregon Watershed Enhancement Board (OWEB) watershed planning and restoration projects, local land use planning, as well as the state's ability to provide technical assistance to coastal communities to address pressing coastal management issues such as coastal hazards, stormwater management, and growth management. A few commenters argued against NOAA and EPA withholding funds from these programs because they felt withholding funding from two important programs for addressing polluted runoff and coastal habitat issues in the state is counterproductive to accomplishing the goals of these programs and unlikely to result in the policy and programmatic changes NOAA and EPA are seeking. Others noted that withholding funding would hurt two state programs and agencies, Oregon's Coastal Management Program in the Department of Land and Conservation and Development and Oregon's Nonpoint Source Management Program in the Department of Environmental Quality, that have very little (if any) influence over some of the most significant remaining issues (i.e., forestry and agriculture). Some commenters also noted that withholding funds would negatively impact coastal communities and watershed groups that also rely on this funding from NOAA and EPA.

Other commenters supported withholding funds even though they acknowledged it may have some negative impacts initially. They saw withholding funding as the only way to get action in the state to improve water quality and protect designated uses. One commenter also noted that NOAA and EPA's failure to withhold funding sooner allowed Oregon to "limp along for over 16 years with inadequate management measures for its coastal nonpoint program while drinking water and other water quality impairments occurred."

Source: 1-C, 5-A, 8-B, 14-C, 16-B, 17-A, 25-A, 25-B, 25-D, 25-E, 25-F, 33-A, 33-B, 36-A, 36-B, 36-C, 37-B, 37-C, 37-D, 43-A, 48-B, 55-B, 64-B, 66-B, 68-B,

Comment [WD27]: I'm hoping this is a quote. Otherwise, we need to steer clear of using phrases such as "limp along".

Response: NOAA and EPA recognize that withholding funding under Section 306 of the CZMA and Section 319 of the CWA could make it more difficult for Oregon to maintain the same level of effort on key programs that help improve water quality and protect salmon habitat, such as the state's coastal management, TMDL, and nonpoint source programs. However, the penalty provision in CZARA appears to have been designed to provide a financial disincentive to states to encourage them to develop fully approvable coastal nonpoint programs to provide better protection for coastal water quality. The statute directs NOAA and EPA to withhold funding when the agencies find that a state has failed to submit an approvable coastal nonpoint program (as is the case with Oregon). NOAA and EPA will continue to work with Oregon to complete the development of its coastal nonpoint program, and will direct a portion of Oregon's remaining federal CWA Section 319 and CZMA Section 306 funding, as appropriate, to develop a fully approvable coastal nonpoint program so that the funding reductions from the penalties can be eliminated as soon as possible.

Comment [AC28]: Does adding this help?

B. Oregon Stands to Lose $4 million per Year in Federal Funding

Comment: Several commenters stated that if NOAA and EPA's proposed finding that Oregon has failed to submit a fully approvable coastal nonpoint program stands, Oregon would lose $4 million a year in federal funding.

Source: 1-C, 14-C, 43-A

Response: NOAA and EPA would like to correct this statement. ~~Based on current appropriations, that would not occur until ***.~~ Each year, beginning with federal FY 2015, Oregon fails to submit an approvable program, the state is subject to lose 30 percent of its allocations under Section 306 of the CZMA and Section 319 of the Clean Water Act for each year that state lacks a fully approvable coastal nonpoint program. For FY 2015, Oregon's total allocation under these two programs ~~that~~ is only about $*** in federal funding. Therefore, the state would loose a total of ~~(a loss~~ of $*** for $** for CZMA Section 306 and $** for CWA Section 319).

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Comment [WD32]: ~$4M (placeholder)

Comment [WD33]: ~$1.2M (placeholder)

Comment [WD34]: $0.6M (placeholder)

Comment [WD35]: $0.6M (placeholder)

III. AUTHORITIES UNDER THE COASTAL ZONE ACT REAUTHORIAZATION AMENDMENTS (CZARA)

A. Suitability of Voluntary Approaches Backed By Enforceable Authorities

Comment: Several commenters noted that CZARA requires coastal states to have enforceable mechanisms for each management measure. They were not satisfied with the voluntary approaches Oregon was using to address many CZARA management measure requirements. They noted that the voluntary approaches were not being adhered to and that Oregon was not using its back-up authority to enforce and ensure implementation of the CZARA management measures, when needed. A few commenters also noted that Oregon had not described the link between the enforcement agency and implementing agency and the process the agencies will use to take enforcement action when voluntary approaches are not adequate to protect water quality. Another commenter noted that voluntary approaches will not work and that the state needed to adopt approaches that could be enforced directly.

Source: 15-C, 15-D, 16-A, 28-E, 30-O, 46-H, 49-J

Response: States must have enforceable policies and mechanisms to implement the CZARA management measures (see Section 306(d)(16) of the Coastal Zone Management Act). As the NOAA and EPA January 1993 *Coastal Nonpoint Pollution Control Program Development and Approval Guidance* states, "these enforceable policies and mechanisms may be state or local regulatory controls, and/or non-regulatory incentive programs combined with state enforcement authority." Therefore, voluntary, incentive-based programs are acceptable approaches for meeting the CZARA management measure requirements as long as the state has demonstrated it has adequate back-up authority to ensure implementation of the CZARA managements, when necessary.

For coastal nonpoint program approval, CZARA requires NOAA and EPA to assess whether or not the state "provides for the implementation" of 6217(g) management measures (Section 6217(b)). To do this, NOAA and EPA examine whether the state has processes in place that are backed by enforceable policies and mechanisms to implement the 6217(g) management measures. In approving a state's coastal nonpoint program, NOAA and EPA cannot consider how well those processes, including voluntary ones, are working or being enforced; rather, we require the state to provide the following:

1. a legal opinion from the attorney general or an attorney representing the agency with jurisdiction for enforcement that such authorities can be used to prevent nonpoint pollution and require management measure implementation, as necessary;
2. a description of the voluntary or incentive-based programs, including the methods for tracking and evaluating those programs, the states will use to encourage implementation of the management measures; and
3. a description of the mechanism or process that links the implementing agency with the enforcement agency and a commitment to use the existing enforcement authorities where necessary.

(See *Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990* and *Enforceable Policies and Mechanisms for State Coastal Nonpoint Programs*.)[4]

Program implementation, and evaluation of the effectiveness of that implementation, occurs after coastal nonpoint program approval. Section 6217(c)(2) of CZARA calls on states to implement their approved programs through changes to their nonpoint source management plan, approved under Section 319 of the Clean Water Act, and through changes to its coastal zone management program, developed under Section 306 of the Coastal Zone Management Act. Therefore, NOAA and EPA evaluate how well a state is implementing its coastal nonpoint program through routine assessment mechanisms for the state's Nonpoint Source Management Program and Coastal Management Program.

Contrary to a few commenters, the federal agencies believe the state has sufficiently demonstrated the link between implementing and enforcing agencies as well as a commitment to use that authority for the new development and onsite sewage disposal system management measures. However, NOAA and EPA agree with the commenter that the state has not met all the requirements for relying on voluntary programs, backed by enforceable authorities, to address its conditions related to additional management measures for forestry. The rationales for those conditions in the final decision document on Oregon's Coastal Nonpoint Program explain why NOAA and EPA have made those findings.

[4] Both guidance documents are available at http://coastalmanagement.noaa.gov/nonpoint/guide.html.

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Comment [AC39]: How do we handle this now that new devel and OSDS won't be included in the FR?

Comment [AC40]: Is this sufficient or do we need to reiterate ourselves? Perhaps we could prefer them to specific page #s?

Comment [CJ41R40]: Since we will be issuing both documents at the same time, I recommend referencing the page numbers unless there are a few sentences in the rationales that would concisely address this issue and would make sense to quote here.

Comment [WD42]: I don't think we need to create an overly complicated response to comments document replete with page-specific cross-references to other documents. This could create a nightmare and is not at all necessary. It's enough that we refer to the other document (no page # references needed).

B. Federal Government Taking Over Oregon's Coastal Nonpoint Program

Comment: One commenter noted that NOAA and EPA have an obligation to step in for Oregon and take over its coastal nonpoint pollution control program since the state lacks the will to address its polluted runoff issues.

Source: 55-C

Response: Unlike some of the EPA water quality programs under the Clean Water Act, such as the National Pollutant Discharge Elimination System (NPDES) Program, CZARA provides for exclusive state and local decision-making regarding the specific land-use practices that will be used to meet the coastal nonpoint program management measures. The Act does not provide NOAA or EPA with the authority to take over, or implement, a state's coastal nonpoint program if the state fails to act.

C. Oregon Needs More Time to Develop Its Coastal Nonpoint Program

Comment: A few commenters stated that NOAA and EPA should give Oregon additional time to develop a fully approvable coastal nonpoint program. They noted that developing a program and addressing the remaining conditions NOAA and EPA placed on the state's program is very challenging and that the state has made significant progress since gaining conditional approval. They also noted that the state is continuing to make additional improvements, such as the current rulemaking process by the Oregon Board of Forestry to achieve better riparian protection for fish-bearing streams, but that the state needs more time before the new rule is adopted.

A few other commenters noted that Oregon has had plenty of time since receiving conditional approval for its coastal nonpoint program in 1998 and that water quality is no better now than it was 16 years ago.

Source: 14-D, 33-C, 28-F

Response: NOAA and EPA have already provided Oregon sufficient time to develop a fully approvable coastal nonpoint program. Per a settlement agreement with the Northwest Environmental Advocates, the federal agencies must make a final decision by May 15, 2014, (subsequently extended to January 30, 2015, by mutual agreement of the settlement agreement parties), regarding whether or not Oregon has failed to submit an approved (without conditions) coastal nonpoint program.

D. CZARA Requires State to Address Issues Outside of Its Control

Comment: One commenter disagreed with the Coastal Nonpoint Program regarding its requirement that states have to meet all CZARA management measures. They noted that some measures, such as onsite sewage disposal systems, are often addressed at the local level, and are therefore, outside of the state's jurisdiction.

Source: 10-B

Response: NOAA and EPA disagree with the commenter that states should not be required to meet the full suite of management measures in the 6217(g) guidance. ~~the onsite sewage disposal system (OSDS) management measures because OSDS management is often addressed at the local level.~~ The CZARA statute requires all coastal states participating in the National Coastal Zone Management Program to develop coastal nonpoint programs that "provide for the implementation, at a minimum, of management measures in conformity with the guidance published under subsection (g), to protect

coastal waters…" (See Section 6217 (b)). The 1993 guidance EPA developed to comply with subsection (g), *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*, outlines two management measures related to new and existing OSDS that states must address.

With regard to the two OSDS management measures, all coastal states have exercised statewide authority to regulate many aspects of OSDS, such as siting requirements and what qualifications are needed to inspect OSDS. NOAA and EPA appreciate that many states have been reluctant to require inspections of OSDS at the state level, but that should not be confused with an inherent limitation of state powers. From a practical standpoint, NOAA and EPA recognize that local governments often play a significant role in managing OSDS, and have therefore~~. Recognizing this, the federal agencies have~~ accepted a variety of approaches ~~states~~ for meeting the OSDS management measures, as well as other measures, including those~~use to meet these management measures~~ that have relied on~~direct state-level authority,~~ a mixture of state and local-level authorities, local efforts with sufficient geographic coverage, or state-led voluntary approaches backed by enforceable authorities.

E. NOAA and EPA Holding Oregon to a Higher Standard

Comment: One commenter stated that NOAA and EPA were holding Oregon to a higher standard than other states. Raising the approval threshold for Oregon compared to other states was unfair to Oregon. NOAA and EPA should focus on helping Oregon meet the previously established minimum standards for other state coastal nonpoint programs rather than requiring Oregon to meet a higher bar.

Source: 10-A

Response: NOAA and EPA have not been provided evidence that Oregon is being held to a higher standard than other states and has implemented processes to ensure that has not happened~~ are not holding Oregon to a higher standard than other states~~. The CZARA statutory requirements and guidance that the federal agencies use to evaluate Oregon's program are the same that is used to evaluate the approvability of every other states' program. Oregon, along with Washington and California, did receive conditions placed on their programs requiring the states to develop additional management measures for forestry that went beyond the basic CZARA 6217(g) forestry management measures. This was done in recognition of the need for the protection of endangered salmon species;~~ and~~ the more stringent water quality requirements ~~the species requires~~for salmon; and the significance of timber harvesting impacts across the Pacific Northwest states. Even though ~~the three~~Oregon, Washington, and California ~~Pacific Northwest states~~ had programs in place to satisfy the standard suite of 6217(g) forestry management measures, impacts to salmon and salmon habitat were still occurring due to forestry activities, so additional management measures for forestry were needed.

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Oregon, however, is unique in one regard: it is the only state where NOAA and EPA have been sued over the agencies' ability to conditionally approve a state's coastal nonpoint program. That lawsuit was settled and EPA and NOAA entered into a settlement agreement with the plaintiff which requires NOAA and EPA to meet certain deadlines that do not apply to other states. The settlement agreement requires EPA and NOAA to make a final decision on the approvability of Oregon's program by May 15, 2014 (extended to January 30, 2015~~, due the number of public comments received~~ by mutual agreement between the parties of the settlement agreement).

F. Need to Take a Tailored Approach to NPS Control

Comment: A few commenters were concerned that NOAA and EPA were applying a one-size-fits all approach to addressing nonpoint source pollution in Oregon by requiring the state to meet specific national management measures. They felt that a more tailored approach that considers Oregon's specific circumstances would be more appropriate.

Source: 8-C, 10-E

Response: By its nature, CZARA gives states great deference to develop programs that are consistent with the broad national 6217(g) management measure requirements, yet are tailored to meet ~~the~~ a state's specific circumstances. Section 6217 does not provide NOAA or EPA with authority to require states or local governments to take specific actions to address coastal nonpoint source pollution. Rather, NOAA and EPA work with the state to find the best approach for each state that is consistent with the overarching CZARA requirements.

As required by section 6217 (g), in 1993 EPA published~~,~~ *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters*. The guidance specifies 56 management measures that form the core requirements of a state's coastal nonpoint program. While the guidance establishes baseline standards for addressing broad categories and sources of nonpoint source pollutants, there are many different approaches that states such as~~, like~~ Oregon~~,~~ can take, or have taken, to be consistent with the ~~overarching~~ 6217(g) management measure requirements. For each management measure, the guidance provides examples of a variety of different things states to could do to satisfy the requirements for the management measure. Further, to date, 22 states have received full approval of their coastal nonpoint pollution control programs developed under CZARA, and the approval documents publically available on NOAA's coastal nonpoint program website demonstrate an impressive variety of state-specific approaches.

While NOAA and EPA have ~~suggested various approaches~~provided Oregon with various recommended approaches ~~could take~~ to meet the 6217(g) management measures built around Oregon's own approaches for controlling coastal nonpoint pollution, ~~but the~~ decisions regarding ~~the specific land use~~how to expand these approaches to meet the management measures ~~practices that the state uses to meet the measures~~ rests with the state. ~~For example, Oregon originally proposed to address the condition on its program about ensuring routine inspections of existing onsite sewage disposal systems with a rule change that would have required inspections at the time of property transfer. When the rule change did not pass, NOAA and EPA worked with the state to come up with a suitable alternative that involved working with the Realtors' Association to develop a voluntary point of sale inspection program that was backed by enforceable authorities that would also satisfy the 6217(g) management measure.~~

G. Coastal Nonpoint Program Needs to Address Climate Change

Comment: One commenter noted that Oregon's Coastal Nonpoint Program needs to address climate change; water shortages and toxins will become even more pressing issues as the climate continues to change.

Source: 50-A

Response: Climate change is an important issue facing coastal states and can have an impact on coastal water quality. NOAA and EPA take climate change very seriously and are involved in a number of initiatives to help states and other entities become more resilient to climate change. For example

through the National Coastal Zone Management Program NOAA has been providing financial and technical assistance to Oregon to encourage local governments to incorporate hazards and climate change considerations into their local comprehensive plans. Specifically, NOAA and Oregon have been working with local governments to plan for and reduce exposure to climate-related natural hazards in Oregon's coastal zone. Ex. 5 - Deliberative

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However, CZARA itself does not have any specific requirements for states to address climate change through their coastal nonpoint programs. When approving state coastal nonpoint programs, NOAA and EPA must make sure each state satisfies the requirements laid out in the 1993 *Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution in Coastal Waters,* developed pursuant to Section 6217(g). The 1993 guidance only contains a few mentions of climate change in the discussion of several suggested best management practices a state could employ to implement the management measure. The discussion for the new onsite sewage disposal system management measure mentions that the rate of sea level rise should be considered when siting onsite sewage disposal systems and the discussion for the stream bank and shoreline erosion management measure notes that setback regulations should recognize that special features of the streambank or shoreline, may change, providing an example of beaches and wetlands that are expected to migrate landward due to rising water levels as a result of global warming. However, none of these are required elements for a state's coastal nonpoint program.

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H. Proposed Decision Exceeds NOAA and EPA's Authority

Comment: One commenter noted that the ~~f~~Federal ~~G~~government places too many regulations on the states, private property owners, and individuals and that NOAA and EPA exceeded the limits defined by the U.S. Constitution. The commenter suggested that Congress should remove the budgets for NOAA and EPA and return those funds back to the state.

Source: 29-A

Response: Congress created the Coastal Nonpoint Program under Section 6217 of the Coastal Zone Act Reauthorization Amendments (CZARA) of 1990. In doing so, Congress charged NOAA and EPA to jointly administer the program. In finding that Oregon has failed to submit an approvable coastal program, NOAA and EPA are simply carrying out their administrative responsibilities under CZARA.

I. The Public Comment Period Is Not Needed

Comment: One commenter questioned why NOAA and EPA requested public comment on their proposed decision. They noted public comment was not needed as long as the federal agencies' decision and analysis is based on established criteria and valid science, which they believed to be the case.

Source: 15-B

Response: NOAA and EPA appreciate the commenter's assessment that the federal agencies' decision and analysis is based on established criteria and valid science. However, public comment is an essential part of the decision making process for Oregon's Coastal Nonpoint Program. CZARA notes that "opportunities for public participation in all aspects of the program, including the use of public notices

and opportunities for comment…" shall be incorporated into state coastal management programs. Therefore, NOAA and EPA would be remiss if the federal agencies did not consider public input when making a decision about whether or not the state has failed to submit an approvable coastal nonpoint program.

IV. GENERAL—WATER QUALITY, MONITORING, AND ENFORCEMENT

A. Status of Oregon Coastal Water Quality Should Inform NOAA and EPA Decision

Comment: Many commenters expressed the need for Oregon to do more to improve coastal water quality and protect designated uses. They believe the fact that many coastal water quality problems in the state still exist demonstrates that Oregon's existing programs to control coastal nonpoint source pollution are inadequate and that the state needs to do more to strengthen its coastal nonpoint program. Specific concerns cited included failure to meet water quality standards, numerous TMDLs for temperature, sediment, and/or toxics, impaired drinking water, and recent federal species listings under the Endangered Species Act for salmon, salmon habitat, amphibians, and wildlife. For example, several commenters cited the recent federal listings for Southern Oregon~~-~~Northern California Coast coho salmon as illustrative of how salmon populations and habitat have continued to decline, due, in part, to human-related water quality and habitat impairments. Commenters specifically called out activities from timber harvesting, agriculture, and urban development as a reason for these impairments. Commenters also stated that Oregon fails to identify land uses causing or threatening water quality because the state ignores technical information available about land uses that consistently cause or contribute to violations of water quality standards in coastal watersheds.

Comment [AC48]: Because is correct. The comment actually made the "because" connection between the two.

Several other commenters noted that recent improvements in Oregon's coastal water quality and salmon runs demonstrate that the state's coastal nonpoint pollution control program is effective. One commenter stated that Oregon streams are among the cleanest in the country and provide good water for aquaculture. A few other commenters noted the good work and water quality and habitat improvements made by watershed groups, Oregon Watershed Enhancement Board (OWEB), Soil and Water Conservation Districts (SWCDs), and the voluntary efforts the timber industry and farmers (cattlemen) have implemented on their own. For example, one commenter cited an Oregon Department of Fish and Wildlife study that shows many out-migrating and returning salmon to Tillamook State forest land and described how collaborative restoration efforts of federal, state, county and private citizen groups have effectively worked together to improve the Tillamook watershed. Another commenter stated there was too much focus on the need to see water quality improvements; rather, given the increase in human population and other development pressures in recent decades, even maintaining water quality levels should be considered a success.

Comment [CJ49]: Not sure I understand. What does the study say about salmon? It there an improving trend? How does the commenter link these results to our proposed decision?

Comment [AC50R49]: Not sure I have any better way to explain this as this is what they said. Basically salmon are doing well in Tillamook thanks to collaborative efforts to improve wq in the watershed. Therefore existing processes working and don't disapprove. (See opening sentence to this para for connection to our proposed decision)

Comment [WD51]: This makes no sense to me. Suggest rephrasing.

Comment [WD52]: …increases in human population or salmon population?

Source: 1-A, 1-B, 5-B, 8-A, 10-C, 11-A, 14-B, 15-E, 19-B, 19-E, 20-A, 20-D, 22-D, 25-A, 26-A, 28-F, 30-B, 30-I, 30-O, 31-B, 35-A, 35-B, 35-C, 39-A, 42-B, 42-C, 42-I, 43-F, 44-B, 48-C, 56-B, 57-GG, 57-NN, 57-VV, 82-C, 82-E, 83-C, 83-D

Response: NOAA and EPA recognize that the achievements of voluntary programs, such as OWEB and SWCDs, play an important role in nonpoint source management and improving water quality in coastal Oregon. Oregon does have some noteworthy successes, such as returning salmon populations to the Tillamook watershed. However, as other commenters pointed out and the state's recent 303(d) list reflects, ~~the~~ Oregon still grapples with impaired waterbodies that are not achieving water quality

standards or supporting designated uses such as domestic water supply (drinking water) and fish and aquatic life (i.e., salmon).

Although NOAA and EPA have found that Oregon does not yet have a fully approvable coastal nonpoint Program and must do more to reduce polluted runoff, specifically related to forestry (see final decision rationale), this finding is not driven by the current status of coastal water quality in Oregon. CZARA does not require states to have clean water throughout their coastal nonpoint program management areas before receiving full approval for their coastal nonpoint programs. Rather, CZARA employs an adaptive management approach. States, ~~like~~ such as Oregon, must have processes in place to implement the 6217(g) management measures as well as ~~have processes in place~~ to identify and implement additional management measures, when needed to achieve water quality standards and to protect designated uses~~(i.e., when the existing 6217(g) management measures are not sufficient for achieving water quality standards and protecting designated uses~~ (see Section 6217(b)).

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Comment [CJ55]: May need to define what is meant by adaptive management approach.

Comment [AC56R55]: I think the following sentence does that.

The legislative history (floor statement of Rep. Gerry Studds, House sponsor of section 6217) indicates that implementation of 6217(g) management measures is "intentionally divorced from identified water quality problems because of the enormous difficulty of establishing cause and effect linkages between particular land use activities and specific water quality problems." Therefore, as noted above, when deciding whether or not to fully approve a state's coastal nonpoint program, NOAA and EPA assess whether or not a state has appropriate technology-based management measures in place, not whether the approaches effectively achieve water quality standards and the current status of the state's water quality.

B. Need Improved Water Quality Monitoring

Note: See also specific comments related to Agriculture-Monitoring and Tracking, Pesticides-Monitoring and Tracking, and Forestry-Pesticides.

Comment: Several commenters stated concern about the adequacy of Oregon's water quality monitoring programs, especially related to monitoring after aerial application of pesticides and herbicides on forest lands. Commenters noted that Oregon does not have monitoring programs in place to adequately assess whether or not pollution controls are achieving their goals and protecting water quality. Therefore, it is difficult for the state to determine if and when additional management measures are needed as CZARA requires.

Commenters suggested several different monitoring approaches Oregon needed to require and implement in order to adequately protect water quality. These included: requiring turbidity monitoring of streams during and after rainstorms and taking enforcement action when excess turbidity is found; requiring recurrent road surface condition monitoring; requiring more frequent inspections of drinking water, especially when pesticide spraying occurs; and improving upon a recently developed strategy for determining agricultural landowners' compliance with water quality rules.

Several other commenters stated Oregon's monitoring and tracking programs were adequate and touted the State's greater focus on water quality monitoring over the past few years.

Source: 2-A, 30-R, 42-G, 42-H, 46-H, 49-I, 57-BB, 71-??, 84-??.

Response: NOAA and EPA recognize commenters are concerned about the adequacy of Oregon's water quality monitoring programs and that the existing monitoring efforts are not robust enough to observe

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Comment [WD60]: DON WAYE – PICK UP MY EDITS HERE!!!!

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Comment [AC61]: Will need to revisit this response based on final statements in decision rationale for ag and forestry.

potential impacts from pesticide application and other land uses and to determine when and if additional management measures are needed. The federal agencies also recognize Oregon's efforts over the past few years to improve its water quality monitoring efforts, such as the state's Enterprise Monitoring Initiative, and strongly encourage the state to make continued improvements on monitoring and tracking of coastal nonpoint source pollution and best management practice implementation within the coastal nonpoint management area.

However, NOAA and EPA did not propose a decision on the approvability of the overall monitoring and tracking elements of Oregon's Coastal Nonpoint Program and did not solicit comment on this issue at this time. The public will have an opportunity to comment on this aspect of Oregon's program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program. (See the appropriate Forestry and Agriculture sections in this document for responses to specific comments related to the monitoring and tracking efforts related to Oregon's forestry and agriculture programs.)

Comment [CJ62]: This is where we might want to include our standard language to be developed.

Comment [AC63R62]: I think this works for standard lang. the into background section will talk about the proposed decision/public comment period and what we solicited comment on so no need to reiterate those portions here.

C. Enforcement

Comment: One commenter noted that Oregon fails to systematically address water quality standard violations caused by excess sedimentation.

Source: 57-UU

Response: CZARA requires state coastal nonpoint programs need to "provide for the implementation" of the 6217(g) management measures (Section 6217(b)). Therefore, when evaluating whether or not the state has satisfied its CZARA requirements, NOAA and EPA do not consider how well a state is implementing or enforcing its laws and programs that comprise its coastal nonpoint program (or whether or not these programs are meeting water quality standards). For coastal nonpoint program approval, NOAA and EPA only consider whether or not a state has programs and processes in place to meet the 6217(g) management measure requirements.

~~Evaluating how well a state is implementing its approved coastal nonpoint program comes later. Section 6217(c)(2) of CZARA notes that states shall implement their approved programs through changes to its nonpoint source management plan, approved under Section 319 of the Clean Water Act, and through changes to its coastal zone management program, developed under Section 306 of the Coastal Zone Management Act. Therefore, NOAA and EPA evaluate how well a state is implementing its coastal nonpoint program through routine assessment mechanisms for the state's Nonpoint Source Management Program and Coastal Management Program.~~

Program implementation and evaluation of the effectiveness of that implementation ~~coastal nonpoint programs are conducted~~ occur after program approval. ~~-~~Section 6217(c)(2) of CZARA calls on states to implement their approved programs through changes to their nonpoint source management plan, approved under Section 319 of the Clean Water Act, and through changes to its coastal zone management program, developed under Section 306 of the Coastal Zone Management Act. Therefore, NOAA and EPA evaluate how well a state is implementing its coastal nonpoint program through routine assessment mechanisms for the state's Nonpoint Source Management Program and Coastal Management Program.

Ex. 5 - Deliberative

States are required to update their nonpoint source management plans every 5 years and submit to EPA for approval. Oregon recently ~~drafted an updated plan, provided the public an opportunity to review the draft plan during August 2015 and~~ finalized its latest ~~the~~ plan on _____. ~~This plan can be found at~~

~~The key components of the updated plan can be found in EPA's "Nonpoint Source Program and Grants Guidelines for States and Territories" on page 53 (see http://water.epa.gov/polwaste/nps/upload/319-guidelines-fy14.pdf). Annually~~ EPA reviews the progress that each state is making in implementing its ~~nonpoint source (NPS) management program~~ plan annually~~and provides written documentation of this progress. Specifically, p~~Prior to approving funding recommendations for the award of section 319 funds, the Regions completes the review covering the prior year to determine the state has made satisfactory progress on implementing its NPS management program. EPA's checklist is designed to document the extent to which each state meets foundational aspects of program progress and CWA section 319 grant management requirements, including those specified in binding section 319 grant guidelines available at www.epa.gov/nps/319 and can be found in EPA's "Nonpoint Source Program and Grants Guidelines for States and Territories" on page 70 (see http://water.epa.gov/polwaste/nps/upload/319-guidelines-fy14.pdf). ~~[Insert something on 319 evaluation mechanisms.]~~

Comment [CJ65]: Right now it is undergoing public review. I am assuming that the final will be final by the time we release this document. Will need to check back.

Field Code Changed

Comment [AC66]: Does epa or the state provide this documentation? A bit unclear as written.

Ex. 5 - Deliberative

The CZMA calls on NOAA to conduct routine evaluations of state coastal management programs. During these evaluations, NOAA assesses how well states are implementing their approved coastal management programs, administering federal grant funding under the program, and achieving the goals of the National Coastal Zone Management Program, including "the management of coastal development to improve, safeguard, and restore the quality of coastal waters, and to protect natural resources and existing uses of those waters" (See CZMA Section 303(2)(c)).

Also, as stated in the introductory chapter of the 6217(g) guidance, *Guidance Specifying Management Measures for Sources of Nonpoint Source Pollution in Coastal Waters,* the legislative history (floor statement of Rep. Gerry Studds, House sponsor of section 6217) acknowledges that the management measures are based on technical and economic achievability rather than achieving particular water quality standards. The legislative history indicates that implementation of management measures was "intentionally divorced from identified water quality problems because of the enormous difficulty of establishing cause and effect linkages between particular land use activities and specific water quality problems." Therefore, as noted above, under the Coastal Nonpoint Program, NOAA and EPA assess whether or not a state has appropriate technology-based management measures in place, not whether the approaches effectively achieve water quality standards.

If, after implementing the technology-based the 6217(g) management measures, water quality impairments are still occurring, CZARA employs an adaptive approach. The Act requires states to provide for the implementation of additional management measures within identified areas to address land uses that are either currently causing water quality impairments or where reasonably foreseeable new or expanding land uses could threaten coastal water quality (Section 6217 (b)(3)).

Comment [CJ68]: Explain what is meant by "adaptive approach" in the context of CZARA.

Comment [AC69R68]: See next sentence.

V. CRITICAL COASTAL AREAS AND ADDITIONAL MANAGEMENT MEASURES

A. Process for Identifying Critical Coastal Areas and Additional Management Measures is Not Effective

Comment: One commenter states that Oregon's process for identifying critical coastal areas and the need for additional management measures, which relies largely on the state's Clean Water Act 303d listing process for impaired waters and TMDL program, is flawed in several ways. Specifically, the

commenter believes Oregon's Clean Water Act 303d listing process is not effective. The state fails to meet the 303d list regulatory requirements to "assemble and evaluate all existing and readily available water quality related data and information to develop the list" and the state does not use nonpoint source assessments to develop its 303d lists. The commenter also states that Oregon ignores a variety of technical information available to help identify land uses that consistently cause or contribute to water quality standard violations. In addition, the commenter noted that Oregon does not use TMDLs to identify critical coastal areas and assess where existing CZARA management measures are not adequate for meeting water quality standards, as required for CZARA approval. The commenter also notes that the associated TMDL water quality management plans do not support an effective coastal nonpoint program. For example, despite the numerous temperature TMDLs that have been developed in Oregon's coastal watershed, they assert that load allocations have not been used to determine minimum riparian buffer width, height, or density to achieve the load allocation.

Source: 57-KK, 57-LL, 57-MM, 57-NN, 57-QQ, 57-RR, 57-SS, 57-TT

Response: NOAA and EPA did not propose a decision on the approvability of Oregon's process for identifying critical coastal areas and additional management measures and did not solicit comment on this issue at this time. The public will have an opportunity to comment on this aspect of Oregon's program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program.

Ex. 5 - Deliberative

Comment [CJ71R70]: You could include both responses.

Comment [AC72]: Awaiting final decision from Mngt Team.

B. NOAA and EPA Lack Authority to Require Additional Management Measures

Comment: A few commenters stated NOAA and EPA do not have the authority to require Oregon to develop additional management measures that go beyond the original management measures in the CZARA guidance. They state that the programmatic guidance for the Coastal Nonpoint Program calls on the state, not NOAA and EPA, to identify additional management measures, if necessary, to achieve and maintain water quality standards. They assert the guidance further states that state is to identify additional management measures only within state-designated critical coastal areas to address state-identified land uses that may cause or contribute to water quality degradation.

Other commenters noted that CZARA requires Oregon to demonstrate that it has additional management measures in place to meet water quality standards and protect designated uses. The commenters noted that Oregon has not met this requirement since water quality standards are still not being met and designated uses are not being protected. They are supportive of placing additional management measure requirements on Oregon's coastal nonpoint program and suggested specific measures or nonpoint source issues the additional measures needed to address (see specific comments below).

Source: 15-E, 28-E, 30-B, 30-O, 57-CC, 71-E, 71-I, 71-H

Response: NOAA and EPA disagree with the commenters that claim that NOAA and EPA lack the authority to require Oregon to adopt additional management measures. While the guidance may indicate that additional management measures should be state-driven, it is only guidance. The statutory language provides the controlling authority. The additional management measures language in CZARA reads:

> *"Each State program …shall also contain the following: (3) Management measures. The implementation and continuing revision from time to time of additional management measures*

applicable to the land uses and areas identified pursuant to paragraphs (1) and (2) that are necessary to achieve and maintain applicable water quality standards under section 303 of the Federal Water Pollution Control Act (33 U.S.D. 1313) and protect designated uses." (Section 6217 (b))

It does not specify who (the state and/or federal agencies) has the authority for the identification of additional management measures nor does it specifically preclude NOAA and EPA from doing so. While Section 6217(b)(1)(A), referenced by the additional management measure paragraph, does note that states shall determine where coastal waters are failing to "attain or maintain applicable water quality standards or protect designated uses" through their water quality planning processes. However, that paragraph who is allowed (or not allowed) to identify land uses that "may cause or contribute to a degradation".

Ex. 5 - Attorney Client

Comment [AC73]: Legal Counsel please fill in correct citation for floor discussion.

Comment [AC74]: Legal counsel, please cite specific language from earlier drafts.

However, beyond the requirements for additional management measures for forestry that NOAA and EPA placed on Oregon's program during the 1998 conditional approval findings, the federal agencies believe specific additional management measures to address other coastal water quality issues are not needed at this time for CZARA approval. The other CZARA 6217(g) management measures are broad enough to protect water quality, when implemented effectively. For coastal nonpoint program approval purposes, CZARA does not require states to have clean water throughout their coastal nonpoint program management areas or to have additional management measures identified to address all water quality impairments. Rather, states, like Oregon, must have processes in place to identify and implement additional management measures, when needed (i.e., when the existing 6217(g) management measures are not sufficient for achieving water quality standards and protecting designated uses (see Section 6217(b)). This process for identifying additional management measures is what NOAA and EPA will evaluate with the federal agencies are ready to approve Oregon's program.

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VI. PESTICIDES AND TOXICS—GENERAL

Note: NOAA and EPA received a variety of comments related to pesticides. Summaries of the general pesticide comments and the federal agencies' responses are provided here. See Agriculture-Pesticides and Forestry-Pesticides for a full discussion of the comments received related to pesticides.

A. Adequacy of Oregon's Coastal Nonpoint Program to Address Pesticides and Other Toxics

Comment: Several commenters noted that Oregon needs to improve how it addresses nonpoint source pollution caused by toxics, including pesticides, herbicides, and superfund contaminants. Commenters specifically noted they believed there was excessive use of toxic chemicals in agriculture and forestry practices. One commenter was also concerned about superfund contamination impacting shellfish harvests.

Commenters expressed their concerns with the ability of Oregon's existing pesticide management program to protect the quality of water in streams and groundwater as well as protect human health and aquatic species and called for more federal oversight. One commenter supported this statement by citing results from a watershed council herbicide study that found that pesticides used along roadsides, agricultural fields, and forestry operations were all evident in Oregon's waterways. They noted that while applicators may have applied the herbicide correctly, the study demonstrates runoff is still occurring, indicating that the state's rules are ineffective at protecting water quality from herbicide application. Several other commenters provided personal accounts of health impacts due to pesticide exposure.

One commenter cited various studies to demonstrate pesticide impacts to human health and the environment from one commonly used herbicide, glyphosate. For example, a few studies in the late 1990s and early 2000s linked exposure to glyphosate to an increased risk of non-Hodgkin lymphoma. Other health effects from exposure to glyphosate described by the commenter included breast cancer, ADD/ADHD, increased risks of late abortion, endocrine disruption, and possible increased risk of multiple myeloma. According to studies from the late 2000s, glyphosate causes altered immune responses in fish, and Roundup, a commonly used glyphosate product, is lethal to amphibians. Other environmental impacts from glyphosate were also described. The commenter contended that these human health and environmental impacts have been attributed to exposure to levels of glyphosate below the EPA set standards. The commenter also stated that studies show adverse health effects of other formulated glyphosate products.

Several commenters also felt the Federal Insecticide, Fungicide and Rodenticide Act (FIFRA), coupled with the state's pesticide rules and its Water Quality Pesticide Management Plan, were insufficient to control polluted runoff from pesticide application to Oregon's coastal waters. Some commenters stated that Oregon needs to improve pesticide application restrictions and protections for all classes of streams. One commenter noted that neighboring states have stricter requirements for pesticide use and application. Another commenter cited the lack of additional ODA rules beyond the EPA pesticide labels, which they state have been demonstrated to be inadequate to protect threatened coho.

A few commenters also stated that not only do they believe Oregon has weak pesticide laws but compliance with the existing rules is poor. One commenter asserted that evidence suggested that federal label restrictions for atrazine are not being followed. Other commenters complained about the state's poor record keeping of pesticide application and inadequate notice of spraying events would occur near their neighborhoods and homes.

Other commenters disagreed. They believed Oregon has adequate pesticide controls in place which are consistent with CZARA 6217(g) requirements. They state that state rules (OAR 629-620-0400) provide for the protection of waters of the state and other resources during chemical application. In addition, applicators are required to follow the FIFRA label requirements and meet additional state requirements

such as for when and during what conditions pesticides can be applied, mixed, stored, loaded, and used The commenter also states that under state rules, applicators need to take into account weather conditions such as temperature, wind, and precipitation to protect non-target forest resources. A commenter also noted that the FIFRA labels have undergone significant changes since 1998 on how pesticides can be applied to forests. In addition, they assert that the EPA-approved Oregon Water Quality Pesticide Management Plan provides additional description of the state's approach to pesticide management.

Source: 2-B, 17-C, 27-C, 28-D, 31-D, 32-A, 35-F, 35-G, 38-A, 38-D, 41-A, 46-H, 46-M, 46-N, 49-H, 50-B, 54-G6, 54-B, 54-D, 54-F, 54-H, 54-I, 54-M, 54-N, 54-O, 54-Q, 54-R, 54-S, 55-P, 57-GG, 57-HH, 57-II, 57-ZZ, 57-II3, 70-B, 70-C, 70-I, 71-R, 71-AH, 71-AI, 71-AJ, 71-AK, 72-A, 77-S, 77-T, 81-B, 83-E, 83-M, 85-C, 85-D, 85-E

Response: NOAA and EPA recognize that many Oregonians are concerned about the use of pesticides and toxics in Oregon and the adverse impacts they have to the environment and public health. After carefully considering all comments received, NOAA and EPA find that Oregon does not have sufficient pesticide management programs in place and that the state needs to do more to strengthen these programs to protect coastal water quality and designated uses, specifically in regard to the aerial application of herbicides. (See rationale for additional management measures for forestry in final decision document for further discussion of the federal agencies' rationale for this finding...and ag section??). NOAA and EPA will continue to work with Oregon within our authorities, to improve its pesticide management efforts to ensure coastal water quality, human health, and designated uses are protected.

Comment [AC75]: May need to adjust after final decision on forestry and ag.

Comment [AC76]: Need to make sure final rationale addresses main issues raised (especially points raised by industry).

While some commenters asserted that Oregon was not adequately enforcing its existing pesticide laws and that current label requirements were not being followed, as NOAA and EPA explained in the agencies' response to general comments about the enforcement of coastal nonpoint program elements, how well a state is enforcing or implementing its existing authorities is not something that CZARA considers for the approvability of a state's coastal nonpoint program. (See Section IV.C, Enforcement)

Finally, regarding the expressed concern over superfund contaminants, CZARA does not speak to superfund contaminates. Rather superfund contaminants are more appropriately addressed through the Comprehensive Environmental Response, Compensation, and Liability Act (the Superfund Act).

B. Pesticides—Adequacy of Overall Pesticide Monitoring Efforts

Comment: Several commenters noted the need for Oregon to strengthen its pesticide monitoring efforts. They stated that Oregon did not have a program in place to determine if federal label requirements are being followed, nor did it monitor widely and regularly for pesticide runoff. One commenter noted that while unknown and unmonitored pesticide uses are a problem, unknown and unmonitored health and environmental risks from pesticides are also a significant problem.

Commenters discussed various monitoring programs that are needed in Oregon, including programs to: monitor pesticide use and impacts; assess whether pesticide management practices are sufficiently reducing pollution and improving water quality; monitor for pesticides in the air, which eventually deposit onto surface waters and soils; monitor for pesticides in coastal watersheds; monitor for pesticides in surface and drinking waters more frequently than every three years such as directly following an aerial spray event; and track whether federal label laws are being complied with. One

commenter also noted that the Oregon lab that tests for pesticides does not have the capacity to test for glyphosate, a commonly used herbicide.

Another commenter also stated that most pesticide risk assessments are based on old and incomplete data and endpoint evaluations and that these needed to be updated with more current information for a better understanding of the true impact of pesticides and acceptable exposure limits. In addition there was little to no understanding of effects from "inert" ingredients in pesticides. The commenter believed that there needed to be more testing and disclosure of these inert ingredients.

A few commenters also objected to NOAA and EPA's statement in the proposed decision document commended the state's Water Quality Pesticide Management Plan and new pilot pesticide monitoring study. They did not think these programs should be praised as part of Oregon's Coastal Nonpoint Program. The commenters did not believe the state's claim that pesticide monitoring would support an adaptive approach and demonstrate when additional controls are needed. They stated that Oregon conducted very little pesticide monitoring to drive an adaptive approach and that none of the pilot monitoring sites are located in the coastal zone.

While the above commenters were concerned with the minimal pesticide monitoring that occurred in Oregon was not sufficient to reveal the true impact of pesticides on the environment and humans, a few other commenters stated pesticide monitoring was adequate. They contend that monitoring efforts have shown that current pesticide management practices do not result in detrimental impacts. For example, one commenter described a study by Dent and Robben (2000) on fish-bearing streams which found no pesticide contamination at or above 1 ppb in any of the post-spray water samples analyzed. The study concluded that that the current Forest Practices Act and pesticide rules are effective at protecting water quality along Type F (fish-bearing) and Type D (drinking water) streams. However, another commenter that discussed the same study asserted that the study may have underestimated pesticide levels.

Source: 54-E, 54-F, 54-S, 57-ZZ, 57-CF-B, 77-R

Response: NOAA and EPA acknowledge that some studies have not found pesticides at toxic levels. However, as some commenters note, the federal agencies believe Oregon still needs to improve its pesticide monitoring and tracking efforts. The federal agencies have revised the decision document to recommend some specific actions the state could take to improve its pesticide monitoring and tracking efforts such as [insert a few examples but doesn't need to include all]. In addition, based on the comments received, NOAA and EPA have also revised its discussion of Oregon's Water Quality and Pesticide Management Plan and pilot pesticide monitoring studies to more clearly acknowledge some of the weaknesses of the plan and pilot studies. (See additional management measures for forestry rationale in the final decision document).

Comment [AC77]: Revist once pesticide rationale is complete.

VII. NEW DEVELOPMENT

Comment: Many commenters agreed with NOAA and EPA's proposed finding that Oregon has failed to fully address CZARA requirements for new development, specifically that the state has not provided a commitment to use its back-up authorities to ensure implementation of the management measure requirements when needed. However, a few commenters did not believe Oregon had an effective

program to control stormwater runoff from new development and meet water quality standards. They noted that the state needed to do more than the voluntary program described. For example, one commenter noted that the TMDL Implementation Guidance must require (not recommend) DMAs to follow NPDES Phase II requirements for small MS4s. Another option that was suggested was that NOAA and EPA should require the state to incorporate the CZARA new development management measures into an existing NPDES General Permit or craft a new permit.

Not all commenters were supportive of new regulatory requirements to address the new development management measure. For example, one commenter preferred that the state use its existing authorities and stormwater permits more effectively rather than place additional requirements on small cities and counties. The commenter noted that small cities and counties are not the main source of impairment and often lack the technical expertise and financial resources to meet the new requirements. They suggested the coverage for the 1200C NPDES general permit could be expanded by decreasing the acreage threshold for the permit or using an approach similar to the 1200OCS permit used to address water quality problems in the Columbia Slough.

Source: 11-B, 13-B, 15-G, 34-B, 34-C, 34-D, 80-C

Response:

VII. ONSITE SEWAGE DISPOSAL SYSTEMS

A. Adequacy of Oregon's Programs to Meet CZARA Requirements for OSDS

Comment: Many commenters agreed with NOAA and EPA's proposed finding that Oregon has failed to fully address CZARA requirements for existing onsite sewage disposal systems, specifically ensuring routine inspections. While some commenters were supportive of the state's planned outreach efforts to promote voluntary inspections, they agreed with NOAA and EPA that Oregon does not have a tracking program in place to assess the effectiveness of its voluntary program nor has the state demonstrated a commitment to use its back-up enforcement authority to ensure inspections, when needed.

Other commenters were not supportive of Oregon's voluntary approach at all. They felt the state needed to require routine inspections and have more direct enforcement authorities. They noted Oregon's OSDS management program was not sufficient for meeting water quality standards and that enforcement action was minimal for existing leaking septic systems. One commenter noted that Dunes City passed an OSDS ordinance to require routine inspections because previous voluntary approaches did not work. Another commenter was concerned about several communities (Lane County and the City of Florence) allowing septic systems to be cited near lakes.

Source: 11-B, 12-B, 13-B, 15-G, 34-B, 34-5, 35-E, 48-A, 48-K

Response:

B. More Needed to Improve OSDS Management

Comment: A few commenters noted specific actions Oregon needs to take before NOAA and EPA approve the state's programs for meeting the OSDS management measure. Actions include: siting OSDS in locations where they are properly separated from groundwater; restricting system density to reduce nitrate input to groundwater; ensure proper sizing of the system to minimize concentrations of contaminants and prevent hydraulic overloading; requiring mandatory inspections every 3-5 years or at the time of property transfer; requiring mandatory pumping after each inspection whenever needed; establishing a step-by-step program for the state to help homeowners with grants and low-cost loans that need support for pumping or replacing failing systems; and establishing explicit enforcement mechanisms.

Source: 34-E, 48-J, 78-E

Response:

C. Concerned with Sewage Discharge to Waterways During Rain Events

Comment: One commenter noted that some communities, such as Myrtle Point and Powers, discharge sewage during rain events, preventing shellfish harvest.

Source: 17-B

Response:

IX. FORESTRY

A. General Effectiveness of Existing Forestry Programs and Adequacy for Meeting CZARA Requirements

Comment: The majority of commenters agreed with NOAA and EPA's proposed decision that Oregon's existing forest practices are not sufficient for meeting the CZARA requirements and that additional management measures for forestry are needed. They argued that current land use laws and the Oregon Forest Practices Act (FPA) and rules do not adequately prevent impacts to water quality or designated beneficial uses (e.g., fish spawning, migration, etc.) from forestry activities. (See additional forestry comments for more specific concerns raised about various elements of Oregon's forestry program.)

Furthermore, several commenters disagreed with language in the FPA that states that compliance with the forest practices rules equates to compliance with water quality standards; the commenters did not believe the FPA practices were sufficient to achieve and maintain water quality standards. Commenters also stated that the Oregon Department of Environmental Quality has failed to use its authority to address these inconsistencies between the FPA practices and water quality standards. A commenter also asserted that NOAA and EPA failed to use their authority under CZARA to address the issue.

Other commenters were concerned that FPA enforcement actions only occur after water quality damage has occurred. A commenter contended that the lack of political will within the state to address water quality problems along with state tax benefits to the timber industry contribute to the lack of resources state agencies have to improve degraded water quality. Commenters recommended NOAA and EPA look at various studies that demonstrate the adverse impacts of the forestry industry on water

quality and designated uses in Oregon (see pg. 10-11 of public comment #58 and the attachments to public comment #57 as examples)[5].

Conversely, a few commenters disagreed with NOAA and EPA's proposed decision and believed Oregon does have programs in place to meet the CZARA forestry requirements and that no additional management measures are needed. For example, commenters stated the FPA "establishes a dynamic program that responds promptly and deliberately to environmental issues as they arise" and requires that water resources, including drinking water, be maintained. They also stated that the FPA requires that best management practices be established to insure maintenance of water quality standards. This FPA provision adheres to the CZARA requirement that additional management measures be established to maintain applicable water quality standards. The commenters further state that the FPA already requires best management practice monitoring, including for pesticide use and landslides, and that the state has proven processes in place to identify and implement additional management measures for forestry, when needed. They highlight that past monitoring efforts have already resulted in improvements to the forest practices rules, such as strengthening protections for land-slide prone areas when public safety is at risk and making improvements to road management procedures.

In addition, one commenter argued that EPA and NOAA have failed to show that Oregon's forest practices rules do not meet water quality and beneficial use objectives; on the contrary, the commenter asserts a "large body of science" demonstrates that Oregon forest practices have a "neutral to positive" effect on aquatic life. They state that making a decision that is not backed by solid science would be arbitrary; such a decision would not stand up to judicial scrutiny.

Source: 35-I, 57-D, 57-E, 57-F, 57-G, 57-H, 57-S, 57-V, 57-W, 58-H, 67-E, 67-G, 70-C, 75-E, 75-G, 77-F, 77-G, 77-M, 77-Q, 79-B, 79-C

Response: As reflected in the final decision document, NOAA and EPA continue to find that Oregon has not satisfied the condition placed on its coastal nonpoint program to "identify and begin applying additional management measures where water quality impairments and degradation of beneficial uses attributable to forestry exist despite implementation of the (g) measures." In its 1998 conditional approval findings, NOAA and EPA identified specific areas where existing practices under Oregon's FPA and rules should be strengthened to attain water quality standards and fully support beneficial uses including: better protections for medium and small fish-bearing and non-fish bearing streams, including intermittent streams; better protections for areas at high-risk to for landslides; better management and maintenance of forestry roads, including so-called "legacy" roads; and better protections for non-fish bearing streams during the aerial application of herbicides.[6] Based on the comments received, NOAA and EPA have revised the final decision rationale to more clearly reference scientific studies that support the need for these additional management measures in the state.

NOAA and EPA recognize that the FPA has language stating that water resources and drinking water must be protected and that the state's monitoring programs for forestry practices that have resulted in noteworthy improvements to its FPA rules. The federal agencies have included language in the decision document that acknowledges these FPA rule improvements, such as amending the FPA rules to require

Comment [AC78]: Confirm this is correct. The Dec. decision doc does. Need to make sure these changes are still reflected in final version.

[5] http://coastalmanagement.noaa.gov/nonpoint/oregonDocket/publicComments.html

[6] See conditional approval findings for Oregon's Coastal Nonpoint Program: http://coastalmanagement.noaa.gov/nonpoint/docs/findor.txt

the identification of landslide hazard areas in timber harvesting plans and road construction and place certain restrictions on harvest and road activities within these designated high-risk landslide areas for public safety. As the final decision rationale more fully explains, while the state should be commended for these positive achievements, these actions are not enough to satisfy the additional management measure for forestry condition. For example, existing science, including studies like the RipStream Analysis carried out by ODF, show that current FPA riparian protection practices are not sufficient to achieve water quality standards. Therefore, more improvements are needed to adopt additional management measures to achieve and maintain water quality standards and protect designated as CZARA requires under Section 6217(b)(3).

NOAA and EPA disagree with the commenter that believed NOAA and EPA are not using their authority under CZARA to ensure forest practices in Oregon achieve and maintain water quality standards. On the contrary, NOAA and EPA's act to find that Oregon has failed to submit a fully approvable coastal nonpoint program, based on the fact that the state has not satisfied its additional management measures for forestry condition, demonstrates that NOAA and EPA are using their authority under CZARA to bring about improvements to Oregon's forest practices.

According to state rule, the best management practices the Board of Forestry (Board) adopts are deemed sufficient for achieving and maintaining water quality standards (ORS 468B.110(2), ORS 527.756, and ORS 527.770). NOAA and EPA recognize that these provisions present some challenges to ODEQ in enforcing water quality standards on forestlands. However, ODEQ does have tools it can use to remove the "best management practices shield" (ORS 527.770) that will allow it to take enforcement action when forestry activities are degrading water quality. The Environmental Quality Commission (EQC), the rule making body for ODEQ, can petition the Board if it believes the FPA rules are not adequate for achieving water quality standards. The Board (with EQC concurrence) can either terminate the review or proceed with rulemaking. If the Board fails to complete its rulemaking in the two-year time period or decides that the revisions are not needed, the "best management practices shield" is lifted. During the rulemaking process, the EQC can also request the Board employ interim steps "to prevent significant damage to beneficial uses;" if requested, the Board needs to take action. NOAA and EPA strongly encourage ODEQ to use these authorities to address forestry water quality impairments, when needed.

Finally, NOAA and EPA cannot comment on what contributes to the believed lack of resources in Oregon to address water quality issues and concerns with how the FPA is being enforced. In reviewing the adequacy of the state's coastal nonpoint program, the federal agencies look at what processes the state has in place to implement the CZARA 6217(g) management measures and if the state has satisfied the conditions placed on its program. Per NOAA and EPA's authority under CZARA, the federal agencies cannot consider potential implementation or enforcement issues or what may contribute to a potential lack of resources to sufficiently implement these programs. (See response to Comment IV.C (Enforcement) for a more in-depth discussion of the enforcement issue).

B. Importance of Forestry Riparian Management

Comment: Many commenters were generally in agreement about the importance of forestry riparian management for addressing erosion and water quality problems they believed were exasperated by lack of adequate riparian buffers along coastal watersheds. One commenter expressed the concern that "large companies with large land holdings" were conducting "dangerous activities" that impact people, wildlife habitats and water quality in the state. The commenter added that such activities required

oversight from laws that limit pollution being released into waterways. Another commenter pointed out that habitat and water quality indicators overlap and contended that there was a need to fully examine how physical habitat and water quality are interconnected. The commenter added that because "streams form a linked network, water quality and stream health is closely associated with the intensity and cumulative extent of forest management activities near streams of all sizes, in all parts of the network", and noted that "approximately 55% of the 27,000 stream miles examined in Oregon were either severely or moderately impacted by nonpoint source pollution."

The commenters touted a variety of benefits to riparian buffers. A few commenters emphasized the negative impacts that occur due to clear cutting and not providing sufficient riparian buffers, such as increased soil erosion, and lack of pesticide filtration. For example, one commenter sited degraded lakes within the Sutton, Mercer, Woahink, and Siltcoos watersheds where clear cutting to the shores has occurred. Other commenters discussed the effects of winter blow downs where "strong coastal winds accelerate through the clear cuts and abruptly hit the buffers with great force." Narrow, inadequate buffers are not able to stand up to these winds, and trees are knocked down, leaving nothing to hold the soil in place which ultimately runoffs and impacts the creeks.

Commenters also pointed out the importance of riparian buffers in maintaining large woody debris (LWD). They stated large wood recruitment is essential to maintain biological and hydrological processes in streams (e.g., sediment retention and transport, habitat formation, substrate for biological activity) and is critical for salmonid populations. A commenter described how in a natural stream/riparian system, large wood is recruited from areas adjacent to streams and upslope, including unstable areas that move down toward streams. Moreover, the commenter noted that large wood was not just needed instream but also adjacent to the stream and discussed the role of conifers and the importance of regeneration rates of conifers in the future. Another commenter noted that older forests and intact riparian areas, as well as large shifting beaver complexes have contributed to greater amounts of LWD in streams which has helped to maintain floodplains, habitat complexity, hyporheic flow, and hydrologic stability. However, the commenter explained, management of coastal lands has resulted in chronic and persistent disturbance and bare riparian areas along the lower reaches of coastal streams. This has led to low LWD, unstable banks, and high energy channels.

Other commenters explained the importance of riparian buffers for controlling sedimentation into streams. A commenter pointed out that if riparian buffers are not required for non-fish bearing streams (headwaters), those streams become a source of excess sediment to networked fish-bearing channels as sediment is transported downstream, essentially decreasing or eliminating the effectiveness of riparian management zones in maintaining low turbidity at a watershed scale. The commenter also described that erosion and sedimentation contributes to losses in channel depth, the frequency and quality of pools, and off-channel habitat critical for fish rearing. Another commenter noted the constant need for regular dredging of the port of Brandon and other coastal facilities due to siltation caused by erosional riparian areas.

In addition, commenters stated that increased sediment delivery and lack of LWD recruitment also impacts designated uses, such as salmoids and drinking water. Commenters explained how increased sedimentation contributes to increased levels of fine sediment, increased turbidity that can impair salmonid sight feeding and cause gill damage. A commenter also discussed how increased sediment delivery can even cause increased water temperatures in the absence shade loss. Others pointed out the importance of forest riparian buffers for maintaining healthy drinking water by filtering sediments,

pesticides, and other pollutants from the water. One commenter noted that even where narrow buffers exist along river shores (e.g., the Siletz River), there are places where the forest buffer has been eliminated completely and streams that flow into the Siletz have no buffer zone at all.

Finally, a commenter also stated that large stream buffers play an important role in storing additional carbon and reduce greenhouse gas emissions.

Sources: 15-E-1, 15-F-1, 15-F-2, 28-B-1, 30-K-1, 35-J-1, 42-D-2, 45-AAA, 56-D-1, 56-D-2, 57-BBB, 57-DDD, 57-EEE, 58-B-1, 58-E-1, 58-E-3, 58-E-4, 58-H-2, 58-H-6, 75-I

Response: NOAA and EPA recognize the importance of riparian buffers along Oregon streams, including both small and medium fish-bearing streams and non-fish bearing streams. The federal agencies continue to find that Oregon's existing riparian management practices are not sufficient to protect water quality and designated uses from nonpoint source pollution related to forestry practices. The state still needs to adopt additional management measures to provide greater protection of forestry riparian areas before NOAA and EPA can find that the state has fully satisfied its coastal nonpoint program requirements under CZARA.

NOAA and EPA revised the final decision document for Oregon's Coastal Nonpoint Program to include additional scientific information about the importance of riparian areas. As discussed in the decision document, riparian buffers play an important role in shading streams to maintain cold water needed for salmon. They also help filter sediment and control erosion; excess sediment can impair salmon habitat and drinking water. Riparian buffers also filter other polluted runoff from entering streams, such as pesticides and other chemical applications. In addition, buffers serve as a valuable natural source of large woody debris that adds complexity to the stream habitat and is important for salmon.

In the decision document, NOAA and EPA acknowledge that the Board of Forestry has been considering a rule change that would provide greater protections to small and medium fish bearing streams. NOAA and EPA encourage the state to complete the rulemaking expeditiously. However, NOAA and EPA also recognize that the rule change, if successful, will not address non-fish bearing streams and that the state also should protect riparian areas along these streams as well.

Comment [AC79]: May need to revise this statement based on final lang. in the decision doc.

C. Forestry Riparian Management Accomplishments

Comment: Speaking to the accomplishments of Oregon's coastal nonpoint program as it relates to forestry-riparian management, commenters emphasized their support for Oregon's existing rules and programs in place to manage the forest industry and maintain water quality and riparian protections. One commenter pointed out that Oregon's Department of Forestry works to strengthen forest rules for riparian protection but faces political challenges that require "thoughtful science". The commenter noted the importance of maintaining the forest industry's support for water quality protection and acknowledged this process will take longer than Spring 2014.

Another commenter, on behalf of various groups, noted that private landowners, foresters, and loggers all support the Oregon Forest Practices Act and believe application of its rules is high. Another group called attention to Oregon's fifteen plus years of "superior voluntary riparian watershed enhancement accomplishments" by the forest sector and contended that EPA and NOAA's restrictions would "stifle these valuable watershed improvements". Lastly, another group noted how Oregon's Department of Forestry has been doing good work to improve water quality and riparian habitat.

Sources: 14-D, 77-AAA, 79-D, 82-B

Response: Currently Oregon relies on both regulatory and voluntary measures to provide riparian protections for fish bearing streams and non-fish bearing streams. While these practices are certainly better than having no protections in place, as discussed more fully in the final decision document, the science shows that Oregon's current riparian protection practices are not adequate for meeting water quality standards, specifically the cold water protection criterion of the temperature standard. Having broad-based support for Oregon's Coastal Nonpoint Program, including from the forest industry, will help contribute to the program's success. However, Oregon cannot continue with the status quo and ignore the results of multiple scientific studies that show changes must be made to the state's existing forestry riparian practices to achieve and maintain water quality standards.

NOAA and EPA recognize the political challenges the state faces as it considers a change to the FPA rules to provide greater riparian protection of fish-bearing streams and the importance of good science to support a rule change. Both NOAA and EPA have testified in front of the Board of Forestry in support of the science that shows greater riparian protections are needed. Both agencies stand ready to continue to assist the state, as needed, as it moves forward with the rule change.

Although the federal agencies understand a rule change takes time, NOAA and EPA cannot further delay a final decision on Oregon's Coastal Nonpoint Program. NOAA and EPA have already provided Oregon sufficient time to develop a fully approvable coastal nonpoint program. Per a settlement agreement with the Northwest Environmental Advocates, the federal agencies must make a final decision by May 15, 2014, (subsequently extended to January 30, 2015, by mutual agreement of the settlement agreement parties), regarding whether or not Oregon has failed to submit an approved (without conditions) coastal nonpoint program. NOAA and EPA arrived at this timeline based on the original commitment Oregon made in a letter to NOAA and EPA dated July 26, 2010, that the state would address its remaining conditions by March 2013.

D. Adequacy of Forestry Riparian Management for Protecting Small, Medium Fish-Bearing Streams and Non Fish-Bearing Streams

Comment: Many commenters expressed the opinion that Oregon's existing riparian management practices and forestry laws were inadequate for protecting small and medium fish-bearing and non-fish bearing streams. When required, buffer requirements are minimal (e.g., 20 feet) and Oregon lacks buffer requirements for non-fish bearing streams altogether. One commenter reasoned that because riparian buffers are not required for non-fish bearing streams, they become a source of sediment for connected fish-bearing channels thus compromising the effectiveness of the overall system of riparian management in maintaining sufficiently low turbidity.

Commenters stated that the Oregon Forest Practices Act and other comparable forest practices have been widely criticized for failing to protect water quality and salmonid habitat (examples provided of such failures related to inadequate shade, poor large wood recruitment, lack of tributary protection, and unstable slopes). They also stated that Oregon's forestry riparian protection standards lagged behind those of their neighboring states, such as Washington and California. Commenters pointed to the National Marine Fisheries Services' determination that the Oregon Forestry Practices Act did not have rules in place to adequately protect coho salmon habitat. Commenters opined that the FPA did not provide for the production and introduction of necessary large woody debris to medium, small, and non-

fish bearing streams and any required buffers under the rules were inadequate for preventing significant warming of streams.

A white paper analyzing the proposed O&C Trust and the Conservation and Jobs Act was noted as providing evidence of support for the need of more stringent programs to protect water quality in Oregon's coastal zone. A concern was raised that even where narrow buffer zones exist along river shores there were areas where those buffers were eliminated completely. The claim was also made that the Board of Forestry has not shown any intent to provide riparian protection for non-fish bearing streams, which were believed to make up the majority of coastal stream miles and flow into fish bearing streams.

A commenter discussed how restoring and maintaining productive aquatic habitat did not appear to be a common stated objective of Oregon programs that influence the management and use of riparian areas and it appeared that riparian corridors have been significantly degraded across large portions of the state's landscape. Other comments pointed to the RipStream study findings as evidence that the existing FPA buffers are not in compliance with water quality standards and the Clean Water Act. They stated that riparian management on private lands has not improved since.

Other comments pointed out other weaknesses in Oregon's existing FPA rules. For example, the rules do not protect non-perennial, or intermittent, streams, which are determined "by the State Forester based on a reasonable expectation that the stream will have summer surface flow after July 15." In addition, the commenter raised issue with the lack of required riparian management for seeps and springs as well.

On the other hand, a couple of commenters believed Oregon's existing Forest Practices Act and rules, combined with its voluntary efforts, were adequate for protecting forestry riparian areas. One commenter stated the Forest Practices Act and rules do provide the minimum requirement for developing large mature trees that can contribute wood debris to streams. They also asserted that voluntary efforts, such as discretionary placement of additional wood in the stream, help to further create large wood debris habitat that salmon need. In addition, they discussed other new voluntary practices are being implemented well among the forest industry, such as the retention of additional leave trees in near-stream areas, and targeted restoration of high-priority riparian areas that are lacking woody debris.

These commenters cited results from several recent Watershed Research Cooperative (WRC) studies to support their position that Oregon's existing forestry riparian management was adequate. For example, they state that that two of the three WRC studies indicate a positive fish response following timber harvesting and that the Hinkle Creek WRC study found that small debris provides shade to non-fish bearing streams.

In addition, a couple of commenters chastised NOAA and EPA for relying on much older studies, such as ODF's 1999 RipStream study and the 2002 ODF and DEQ Sufficiency Analysis, to support the federal agencies' claim that Oregon's needed greater protection of small, medium fish-bearing streams and non-fish bearing streams. They stated NOAA and EPA should have considered newer, more relevant research, such as the WRC studies. In addition, one commenter felt NOAA and EPA misinterpreted the RipStream study findings. They believed NOAA and EPA's description of the study's findings on page 8 in the proposed decision document did not align with the actual conclusions of the report.

One commenter also reflected that the criticism of the existing FPA and rules should be tempered against the evolving science and understanding of forestry riparian management. They site how former thinking that clean wood placement in streams was needed to improve instream fish habitat and increase dissolved oxygen, has now evolved to an understanding that large woody debris is needed to achieve these goals. In addition, the commenter states that while there used to be an emphasis on retaining large conifers along streams, that thinking has now shifted to reflect a new understanding of the benefits of riparian hardwoods as well and the importance of diversity in tree species within the riparian zone.

Sources: 15-G-2, 28-B-1, 30-K-1, 43-BBB, 55-P, 56-D-2, 56-E-1, 56-E-2, 56-E-3, 57-AAA, 57-BBB, 58-E-2, 58-H-1, 58-H-3, 58-H-4, 58-H-5, 67-D1, 67-D-2, 75-H, 77-H. 77-I, 77-BBB, 77-CCC, 77-DDD, 79-E, 79-G

Response: NOAA and EPA continue to find that Oregon needs to do more to protect riparian areas along small and medium fish-bearing streams and non-fish bearing streams. As discussed in more detail in the final findings document for Oregon's Coastal Nonpoint Program, there is a wealth of science, such as the recent 2011 RipStream study, that shows that Oregon's existing FPA riparian protection practices on private forest lands in the Oregon Coast Range, are not sufficient for meeting the cold water protection criteria for the state's temperature water quality standard.

A few commenters claimed the existing FPA practices, coupled with voluntary riparian protection efforts, are sufficient for protecting riparian areas. -These commenters cited unpublished, preliminary results from the Watershed Research Cooperative's paired watershed studies that indicated changes in stream temperature along non-fish bearing streams was variable and that were was no significant change in downstream due to harvesting activities under the FPA. However, as NOAA and EPA discuss more fully in the final findings document, variation in stream temperature and overall net observed decrease in temperature decrease may be attributable to increased slash debris along the stream after harvest as well as a likely increase in stream flow post-harvest that could prevent an increase in temperatures and contribute to lower mean stream temperatures. DEQ evaluated the study results and concluded that temperature data from the Hinkle Creek and Alsea River paired watershed studies show that temperature increases downstream from the harvest sites for fish-bearing streams were very similar to the increases found in the RipStream study. Therefore, as stated in the final decision document, there may be other factors at play that make it difficult to draw any definitive conclusions about the adequacy of the FPA practices from their results.

NOAA and EPA do not believe the federal agencies have misinterpreted the RipStream study in the proposed findings document as one commenter claimed. In the proposed findings, NOAA and EPA stated,

> "A significant body of science, including: 1) the Oregon Department of Forestry's (ODF) Riparian and Stream Temperature Effectiveness Monitoring Project (RipStream)…continues to document the need for greater riparian protection around small and medium streams and non-fish bearing streams in Oregon. In its July 1, 2013, submission to the federal agencies, Oregon cited the RipStream study and acknowledged that there was evidence that forest practices conducted under the State's existing Forest Practices Act (FPA) rules do not ensure forest operations meet the State water quality standards for protecting cold water in small and medium fish bearing streams."

While NOAA and EPA did not specify which RipStream study they were referring to in the body of the proposed findings, the References section at the end of the document does provide the full citation for

the three RipStream studies, one published in 2008 and two published in 2011. These RipStream studies assessed how the FPA's existing riparian protection practices affected stream temperature. In their RipStream publication, Groom et. al. (2011a) found that there was a "40.1% probability that a preharvest to postharvest comparison of 2 years of data will detect a temperature increase of >0.3 ºC". The state's stream temperature anti-gradation standard says that water temperatures cannot increase more than 0.3 ºC. Therefore, the researchers concluded that "[stream temperature] anti-degradation [standard] compliance may be a problem on private forestry lands in the Oregon Coast Range."[7]

The statements NOAA and EPA made in the proposed findings document about the RipStream study align with this conclusion. To address any apparent confusion regarding the federal agencies' interpretation of the RipStream study, NOAA and EPA have revised the final findings for Oregon's Coastal Nonpoint Program to further clarify the discussion of the RipStream study to include an in-text citations for the RipStream studies and provide a more in-depth discussion of the study's results.

As one commenter stated, the science around riparian buffer protection is evolving. That is true. NOAA and EPA continue to welcome and support scientifically rigorous studies to evaluate the effectiveness of Oregon's existing practices in protecting water quality standards and designated uses and to investigate alternative approaches that will provide greater protection, when warranted. However, just because the science is continuously evolving should not prevent Oregon from taking action to provide better riparian protection when the current science clearly shows that the state's existing FPA practices are not meeting the protection of cold water criterion for the temperature standard. Employing a nimble adaptive management approach that allows the state to make adjustments and to identify when additional management measures are needed based on current science, is a core component of a state's coastal nonpoint program (See Section 6217(b)).

As a few commenters noted, Oregon's riparian protection standards for small and medium fish-bearing streams and non-fish bearing streams are not as strong as those for neighboring states like Washington and California. For example, Washington [****insert details]. In California, [**** insert details]. CZARA gives states the flexibility to develop a program that best meets their unique needs. Therefore, while Oregon does not have to adopt the same standards as its neighbors, NOAA and EPA encourage Oregon to look to Washington and California as potential models for the types of riparian protection practices it may wish to consider. These practices have already been instituted by the forest industry in Washington and California which have had to contend with similar topographies, weather conditions, and sensitive species.

Comment [AC80]: Alan and tech team…can you provide specifics here? We should site actual state regs/statute.

Finally, NOAA and EPA note that one commenter expressed concern that in some areas, even Oregon's current FPA buffer requirements were not being followed. While that may be the case, that is an enforcement issue. Under CZARA, how well a state is enforcing its existing policies and programs is not considered for coastal nonpoint program approval. (See the response to Section VI.C, Enforcement, for a fuller explanation).

[7] Groom, J.D., L. Dent, and L.J. Madsen. 2011. Stream temperature change detection for state and private forests in the Oregon Coast Range. Water Resources Research 47: W01501, doi:10.1029/2009WR009061.

E. Greater Protection of Forestry Riparian Areas Needed

Comment: Several commenters stated that Oregon needs to provide greater protection for forestry riparian areas along both fish and non-fish bearing streams. One commenter provided several examples of recommended buffer widths that the state may wish to adopt. For example, they mentioned that NMFS recommends no-cut riparian buffers ranging from 150-300 feet in width to protect salmonids. The larger buffer widths are for fish-bearing streams, while the smaller widths are more suitable for non-fish bearing streams. The commenter also stated the Northwest Forest Plan recommends similar buffer widths (300 foot no-cut buffers along fish-bearing streams and 150 foot no-cut buffers along non-fish bearing streams). The commenters stated that wider riparian buffers would ensure large wood recruitment, improve sediment and pesticide filtration, and provide sufficient tree basal area within the riparian zone to shade streams and protect cold water needed for salmon. As one commenter also asserted, the larger buffers would also provide greater protection from blow downs and ensure that if a few trees are blown down, enough would remain to still provide a functioning buffer.

In addition to greater protection of forestry riparian areas, commenters stated that riparian restoration was needed. They highlighted the important role large downed trees, or nurse trees, play in forest regeneration.

One commenter did express concern with adopting riparian buffers similar to the Northwest Forest Plan. They stated that when the Bureau of Land Management adopted the plan's buffers, it limited the amount of timber that could be harvested. The new buffer requirements necessitated three landings and two more harvest units to harvest the same amount of timber that used to be done with one landing before. Therefore, as the commenter stated, more restrictive riparian buffers leads to greater ground disturbance.

Sources: 20-B-1, 30-K-1, 48-I, 55-N, 56-E, 56-E-1, 56-E-2, 57-E-3, 58-E-4

Response: NOAA and EPA agree that Oregon needs to do more to protect riparian areas along small and medium fish-bearing streams and non-fish bearing streams. In the final decision document, the federal agencies acknowledge the Board of Forestry's ongoing rulemaking process that is considering improvements to the FPA riparian protections for small and medium fish-bearing streams, may help the state provide some of the protection needed. NOAA and EPA encourage the state to complete those rule changes as expeditiously as possible.

NOAA and EPA appreciate the recommended buffer widths commenters provided and will be sure to share these suggestions with the state for its consideration. CZARA does not require states to adopt specific buffer widths to have a fully approved coastal nonpoint program. Rather, the state has the flexibility to identify the type of buffer protection that works for them yet still will enable them to achieve and maintain water quality standards. NOAA and EPA continue to work with Oregon to make sure the state has a good programs and processes in place to provide the riparian protection needed.

As with implementing any best management practice, there are trade-offs to be made. In some limited circumstances, more restrictive riparian buffers may result in greater ground disturbance to harvest the same amount of timber, when implemented well, the benefits wider riparian buffers provide to protect water quality and designated uses can outweigh any potential adverse environmental effects.

Comment [AC81]: Does this make sense? Are we comfortable making this statement…can we substantiate it?

Finally, while Oregon should be encouraged to continue to restore forestry riparian areas through its voluntary Oregon Watershed Enhancement Board activities and other means, having specific restoration

programs in place for forestry riparian areas is not one of the remaining issues Oregon needs to address to satisfy the condition related to additional management measures for forestry on its coastal nonpoint program. NOAA and EPA did not solicit specific comments regarding Oregon's program to restore forestry riparian areas.

F. Impacts of Strict Forestry Riparian Protection

Comment: A couple of commenters expressed concern about the impacts stricter riparian management would have on forestry operations. One commenter felt requirements for larger riparian buffer widths would only hurt the logging industry and drive up the price of lumber. Another commenter stated that any EPA and NOAA-proposed restrictions would limit the ability of private forest landowners to invest in watershed restoration efforts, including enhancements to forestry riparian areas. They felt additional restrictions would smother the forest sector's cooperative stewardship ethic and long-history of voluntarily adopting good riparian management and other forest stewardship practices.

Sources: 20-B, 79-D, 79-F

Response: NOAA and EPA recognize that wider no-cut riparian buffer requirements and strengthening other riparian management practices may slightly reduce the number of harvestable trees available to the timber industry in Oregon. However, many of the same timber companies are also successfully operating in Washington and California—states that already have stronger riparian protection requirements in place. Even though the timber industry must abide by stricter riparian protections in neighboring states, the industry still adopts voluntary practices that provide further protections and works with partners on watershed restoration activities in those states. For example….[can we include an example from WA or CA where the industry still has a "good stewardship ethic" and helping out with restoration or additional voluntary BMPs?].

Therefore, NOAA and EPA do not believe increasing buffer requirements within Oregon's coastal nonpoint management area will have a significant impact to the forestry industry in Oregon. Also, with more robust riparian protections in place, there will not be as great a need for the industry to invest in watershed restoration efforts. Riparian area and, as a result, water quality would be protected before damage occurs that would necessitate restoration. After all, it is typically more cost-effective to protect an area to begin with than to try to clean up a mess after it occurs.

G. Flexibility for Forestry Riparian Management Needed, Including Use of Voluntary, Incentive-Based Approaches

Comment: Rather than relying on strict regulatory approaches to better protect riparian areas on forest land, a few commenters advocated for more flexible, voluntary, and incentive-based approaches. The commenters recognized more could be done to protect riparian buffers, and thus water quality, salmon and other designated uses. However, they felt additional incentive-based approaches, combined with the existing Forest Practices Act rules, would be the best way to provide these additional protections and facilitate long-term wood recruitment and shade to support high-quality salmon habitat. Voluntary practices they recommended included the retention of additional leave trees near fish-bearing streams, the placement of large woody debris in streams, planting trees and other riparian restoration activities, and thinning riparian forests to levels that promote primary production in streams and the adjacent understory (primary production being important for salmon populations).

Sources: 75-F, 77-CCC, 79-D, 79-F

Response: NOAA and EPA understand and respect the need for states to be able to use flexible approaches in developing and implementing their coastal nonpoint programs. CZARA requires management measures to be backed by enforceable authorities. As NOAA and EPA describe in the *1998 Final Administrative Changes to the Coastal Nonpoint Pollution Control Program Guidance for Section 6217 of the Coastal Zone Act Reauthorization Amendments of 1990,*[8] this can either be through direct enforcement authority or through voluntary efforts, backed by enforceable authorities. If states chose a voluntary approach, as the guidance outlines, that states not only must provide a description of their voluntary programs but also meet other requirements including: (1) providing a legal opinion asserting they have suitable back-up authorities and demonstrating a commitment to use the back-up authority, when necessary; and (2) have program in place to monitor and track implementation of the voluntary program. Voluntary programs could play an important role in Oregon's Coastal Nonpoint Program, however, the state has not fully described its voluntary programs for forestry riparian protection or satisfied the other requirements needed to use voluntary programs to meet part of their CZARA 6217(g) management measure requirements.

H. Forestry Landslide Management

Comment: Some commenters acknowledged that landslides caused by logging practices, such as clear cutting on steep slopes, are a real problem in Oregon and additional management measures are necessary to address these impacts. It was noted that Oregon does not have sufficient programs to reduce landslide risk and control nonpoint pollution due to logging on private lands.

Others expressed their disagreement with the federal agencies' recent decision and argued that the evidence provided by the federal entities was misleading, only focusing on "landslide density relationships" rather than considering the "total number of landslides triggered during major storms". If consider the latter, one would see that the "potential increases in sediment delivery to public resources from landslides...is proportionally small". It was recommended that EPA consider a broader scale view over longer timeframes to evaluate whether water quality and designated uses are impaired. In addition, it was argued that EPA has not offered objective evidence that additional management measures are needed to maintain water quality; the federal agencies have not produced any evidence that landslides resulting from forest management activities have caused exceedances in water quality or negatively impacted aquatic life.

Source: 61-A, 63-B, 67-B, 77-J, 77-K, 77-L

Response: NOAA and EPA continue to find that Oregon needs to do more to protect high-risk landslide areas from logging activities to ensure water quality and designated uses are not impaired. Based on the comments received, NOAA and EPA have revised the rationale in the final decision document to provide more specific scientific evidence to show the link between timber harvesting and landslide risk and how landslides increase sediment loads to nearby streams.

NOAA and EPA disagree that a wider landscape-scale approach to assessing landslide impacts would be appropriate. While the effects of a single landslide may be diluted when a landscape scale view is taken, the impact to a specific stream reach (or reaches), and the designated uses of that stream, are real and can be significant. It is still important to capture and consider these impacts when planning harvest activities so that landslide risks that can impair waterbodies can be minimized.

[8] http://coastalmanagement.noaa.gov/nonpoint/docs/6217adminchanges.pdf

I. Forestry Road Management

Comment: One group commented that there is no program in place to control non-point pollution sufficiently to meet CZARA and management measures are needed to maintain water quality and protect designated beneficial uses due to logging impacts. Examples of logging roads and associated impacts to watersheds and habitat were noted by various commenters. Speaking to current forest practice rules, another group commented that "generic BMPs" are imposed and are not backed by relevant water quality data and so fail at protecting water quality and beneficial uses. The group added that existing rules for forest roads are vague and prioritize logging over protection of water quality. One argument stated that Oregon's road location rule, which only requires operators to minimize risk to streams rather than requiring them to avoid water quality problems, is not sufficient. Other examples given demonstrating the inadequacies of the current forest practices rules include how they are not designed to eliminate delivery of fine sediment or to ensure that delivery does not impair water quality and they do not require that existing, inactive logging roads or "legacy roads" be brought into compliance with water quality standards.

Another group made the argument that while NOAA and EPA have expressed their concerns about forest roads delivering sediment into streams and have requested that the state enact an inventory and reporting program for forest roads, they have not cited any sources supporting these concerns and have presented no basis for the request. The commenter contends that new rule revisions (2002 – 2003) and success under the Oregon Plan for Salmon and Watersheds were detailed in the State's submission and are evidence that the Oregon Forest Practices Act is working as it should and the Board of Forestry is committed to implement additional management measures for forestry roads as needed. They also note that salmon stocks are recovering. The commenter also argued that while NOAA and EPA have expressed their concerns about forest roads delivering sediment into streams, they have not cited any sources supporting these concerns.

Source: 57-D, 57-I, 57-N, 57-O, 57-P, 57-R, 57-T, 57-U, 67-B, 75-D, 77-M, 77-N, 77-O, 77-P, 77-Q, 77-P, 77-Q

Response:

J. Impacts of Forestry Pesticide Application on Human Health, Drinking Water, and the Environment

Comment: Many commenters voiced concerns about the short and long-term impacts of pesticide and herbicide use associated with the forest industry in Oregon, especially using aerial spraying as a method of applying these chemicals. These commenters believed that Oregon coastal watersheds are not adequately protected from the use of these chemicals. Adverse impacts to drinking water, human health, salmon, amphibian and crayfish habitat, water quality, and property values, were among the list of concerns commenters raised. One commenter stated amphibians are particularly vulnerable because they have moist, permeable skin and unshelled eggs that are directly exposed to soil and water that could be contaminated with pesticides. Another commenter also discussed how certain chemical properties of herbicides allow them to persist in the environment and to eventually be carried downstream to fish. They stated that pesticides and herbicides, like atrazine, can bind to soil particles and then washed into waterways through surface runoff, sediment erosion, or groundwater transport. One commenter noted that is of particular concern because in Oregon, it is legal to spray herbicides, like atrazine, over dry channels. During wetter months, when the channels fill with water, atrazine, bound to the soil, can be carried downstream and affect fish.

A commenter also stated that not enough is known about the interactions of various pesticides and herbicides chemicals when mixed. They noted that synergistic effects of unknown components of pesticides could inhibit immune responses and pose long-term unknown issues.

Several commenters sited specific studies or personal observations to support their statements. For example, one commenter stated one finding of the report, *Oregon's Industrial Forests and Herbicide Use: A Case Study of Risk to People, Drinking Water and Salmon*, concluded there are known endocrine disrupting chemicals entering Oregon's drinking water sources and fish-bearing streams.

Other commenters described acute health impacts (e.g., headaches, breathing issues, etc.) immediately following spray events and more long-term health issues they contributed to pesticide exposure. One commenter reported that their drinking water system tested positive for glyphosate while another commenter, from the Triangle Lake area, stated that their urine and blood tested positive for 2,4-D and atrazine metabolites. Another commenter also relayed how people in Western Lane County were found to have low (high?) levels of insecticides in their blood. In the Triangle Lake area, a commenter stated that pesticide application records showed that over 20 tons of pesticides were applied in a three-year period. Commenters also reported seeing dead fish in streams after spray events and said that chemicals used in forest practices have been found in local streams.

Comment [AC82]: Jenny, your summary comment states low but that doesn't seem right. Should it be high?

Source: 2-C, 2-F, 2-G, 2-K, 2-J, 3-A, 3-B, 27-C, 28-C, 30-G, 30-P, 30-Q, 31-D, 35-L, 40-B, 42-F, 42-M, 42-R, 42-T, 46-E, 46-K, 46-O, 46-D, 46-E, 46-G, 48-F, 48-K,53-D, 54-D, 54-G, 54-F, 54-H, 55-M, 57-CF-A, 57-CF-B, 57-CF-D, 58-I, 59-A, 62-B, 62-C, 62-E, 69-B, 69-C, 69-D, 69-E, 69-F, 70-C, 70-D, 70-E, 70-G, 70-H, 70-J, 70-O, 72-B, 75-C, 76-A, 76-C, 76-D, 77-R, 77-S, 77-T, 83-M, 85-D, 85-E

Response: EPA and NOAA recognize that forestry pesticides are being observed in some drinking water and stream samples in coastal Oregon and that many citizens are concerned about adverse the public health and environmental impacts due to pesticide exposure. To better understand pesticide exposure, the Oregon Health Authority and other agencies are leading an Exposure Investigation to evaluate whether aerial application is affecting drinking water, surface water, food, and other resources. Additional research and monitoring is also needed to understand the potential impacts of pesticide use in Oregon. That is why, in the final decision document for Oregon's Coastal Nonpoint Program, NOAA and EPA have recommended Oregon continue to strengthen and expand its forestry pesticide monitoring efforts, especially within the coastal nonpoint program area. NOAA and EPA encourage Oregon to develop these more robust monitoring protocols in consultation with EPA and NOAA's National Marine Fisheries Service so that sound methodologies are selected to assess potential impacts to water quality and designated uses.

Comment [AC83]: Are we comfortable stating this?

Comment [AC84]: What area is this study? Is this only for the Triangle Lake area or more broadly? Is EPA involved?

Comment [AC85]: Revise and expand as appropriate to match final decision rationale language.

K. Adequacy of Current Forestry Pesticide Management Practices for Protecting Water Quality and Designated Uses

Comment: Many commenters expressed concern that Oregon does not have adequate management practices in place for the application of pesticides by the forest industry to protect water quality and designated uses. They cited specific studies and personal experiences of pesticide exposure to illustrate that current practices were allowing pesticides to impact human health and the environment. (See summery comment VI.A (Impacts of Forestry Pesticide Application) above.)

Commenters asserted that Oregon does not have an effective pesticide management program to protect groundwater and drinking water. Many commenters focused on the inadequate spray buffers

for pesticide application. For example, commenters asserted that Oregon's existing spray buffers for the aerial application of pesticides, including the 60 foot no-spray buffer around fish-bearing streams, are ineffective at protecting water quality and designated uses, including drinking water; the 60 foot buffer is too small and non-fish bearing streams are not protected at all. For example, one commenter described that they observed narrow or non-existent buffers along streams that flow into the Siletz River where there are clear cuts to the banks and aerial spraying occurring over the cuts.

Several commenters noted that Oregon's spray buffer requirements, and many other pesticide management practices, were not as protective as neighboring states. Commenters felt Oregon needed larger spray buffers around waterbodies for the aerial application of pesticides and herbicides. One commenter also suggested a pesticide-free buffer was needed around certain land uses, such as schools. Another commenter expressed concern about herbicide spraying was allowed to occur in Lane County despite protection zone language and the Water Districts efforts to prevent application over the Clean Lake watershed (a drinking water watershed). Another commenter also asserted that additional research is needed to determine if aerial spraying of herbicides by the forest industry is a necessary method of application.

Commenters did not feel Oregon's existing spray buffers were large enough to protect against aerial drift, which they asserted was a common occurrence given the microclimates of the Oregon Coast Range. Commenters were concerned that aerial drift of pesticides from the application site could impact nearby organic farms, vineyard owners, natural forest land owners, members of the community, streams, and drinking water sources. One commenter stated that although the Oregon Health Authority acknowledges that aerial drift can carry pesticides two to four miles from the application site, there is no monitoring of pesticide drift after application. Another commenter noted that glyphosate was detected in Jetty Creek, illustrating that legal spray buffers were not protective enough. A commenter suggested that EPA should require ODF, in consultation with DEQ, to exercise authority to review comments and require modifications of the written forest vegetation management plans when needed. A commenter also stated that additional management measures to provide increased protection for both fish and non-fish bearing streams during the aerial application of herbicides.

However, other commenters contended that Oregon's existing forestry pesticide management practices were adequate. They stated that pesticide applications must be licensed and, along with landowners, are already subject to stringent regulations and guidelines under the FPA and FIFRA. One commenter also noted that ODF has developed guidelines to provide further assistance implementing the FPA rules, including Forest Practice Rule Guidance for Chemical and Other Petroleum Products (2009). A few commenters asserted that EPA label requirements under FIFRA were sufficient. A commenter also noted that EPA has not revised the pesticide labels to reflect the restrictions that NOAA National Marine Fisheries Services' biological opinion on the pesticide labels says are necessary to protect ESA-listed salmon.

One commenter stated that water quality monitoring activities for non-fish bearing streams during and after spraying herbicides has shown no detrimental impacts to water quality. For example, one commenter cited a U.S. Geological Survey study (Kelly et. al, 2012) that looked at pesticide use in the Clackamas Basin. The commenter reported the study found that although low levels of pesticides were detected in some drinking water samples the potential threat to human health was negligible. The study also compared pesticide contamination from urban, forestry, and agriculture use and found that the forest land pesticides were rarely detectable in the McKenzie River, even though forest land accounted

for the largest land use in the basin. In addition, a commenter also stated that Oregon continues to monitor for over 100 pesticides, which allows the state to identify potential problems with the aerial application of herbicides, if any arise.

Sources: 2-E, 2-I, 3-A, 27-C, 28-B, 30-G, 30-S2, 35-D, 35-E, 35-J, 42-H, 42-Q, 45-B, 46-C, 46-I, 46-D, 49-H, 54-B, 55-N, 56-F, 57-CT-B, 58-F, 62-B, 69-C, 70-C, 70-E, 70-J, 70-K, 70-L, 70-M2, 70-N, 76-C, 77-R

Response: NOAA and EPA recognize there is concern about the adequacy of Oregon's current spray buffers for pesticides and other pesticide management practices. Although a some research, such as Kelly et. al (2012) has shown that current pesticide management practices may not be resulting in adverse impacts to water quality and designated uses, this study was not conducted directly following a spray event so is not able to paint a full picture of pesticide exposure. Ex. 5 - Attorney Client

Ex. 5 - Attorney Client

Comment [AC86]: Compare with final rationale language and revise accordingly.

Ex. 5 - Attorney Client

Although there is always room for states to continue to improve their pesticide management practices, for the purposes of coastal nonpoint program approval, NOAA and EPA are only concerned with the adequacy of the state's protective measures for Type N (non-fish bearing streams) during the aerial application of herbicides. The final decision document for Oregon's coastal nonpoint program lists several steps the state could take to provide better protection for these non-fish bearing streams.

Although CZARA allows each state to design a coastal nonpoint program that meets their own unique needs and circumstances, NOAA and EPA also encourage Oregon to look to its neighboring states for examples of more protective practices that may also be useful to implement during the aerial application of herbicides along Type N streams. As some commenters stated, Oregon does have smaller spray buffers for the aerial application of herbicides compared to neighboring states and could learn from neighboring states that have similar topography, weather conditions, and sensitive species. For example….[insert examples from other states or if included in final decision doc, note that it is discussed more fully there so we don't have to repeat ourselves.]

L. Inadequate Notification and Transparency by Forestry Industry When Pesticides Are Used

Comment: Several commenters expressed concern about the poor notification procedures and lack of transparency related to the aerial application of pesticides. For example, one commenter described one instance where aerial spraying occurred within their watershed without warning. Commenters stated that the public is not informed of the exact date when spraying will occur; only provided a six-month window of when it would occur is provided. They also asserted that the notification requirements were vague and that pesticide application records were not available to the public. A commenter stated that application records are only available to the State Forester when requested. Another commenter stated that the Oregon Forest Practices Act prohibits researchers, doctors, and the public from obtaining accurate information about the types and quantities of herbicides that are sprayed.

Sources: 40-C, 42-G, 42-J, 42-K, 42-L, 42-P, 42-S, 46-E, 46-L, 48-G, 48-M, 53-D, 54-G7, 70-M, 85-I

Response: When pesticides are being used, it is important for the public to be well informed about when and what types of pesticides will be used near their property. That is why, in the final decision document, NOAA and EPA have recommended that Oregon improve its notification processes and transparency for the aerial application of herbicides and other pesticides.

Comment [AC89]: Check with language in final rationale and revise as needed.

M. Inadequate Forestry Pesticide Monitoring

Comment: In addition to their general concern about pesticide use by the forest industry and inadequate spray buffers when pesticides are applied, several commenters expressed their concern about the inadequacy of Oregon's water quality monitoring efforts following aerial application of pesticides and herbicides on forestry lands. One commenter stated Oregon has no program to determine the presence of forestry pesticides in the air and resulting in drift and deposition onto surface waters and soils. Commenters gave many examples of how they believe drinking water, human health, and fish and wildlife have been impaired by aerial spraying.

One commenter noted without effective monitoring protocols, the state lacks data to prove aerial application is a problem and that improvements were needed. For example, one commenter stated there was no monitoring of aerial drift even though the Oregon Health Administration said chemicals could drift two to four miles. Another commenter also noted there was little to no coordination between DEQ and ODF on pesticide monitoring. A few commenters also questioned NOAA and EPA's praise of Oregon's Water Quality Pesticide Management Plan. They noted that while the state purportedly uses water monitoring data to develop adaptive management approaches, the state actually undertakes very little pesticide monitoring and that there is no evidence the state collects any data in coastal watersheds.

It was pointed out that while NOAA and EPA found state-level frameworks and actions sufficient for addressing pesticide water quality controls, none of the pilot monitoring programs supporting this finding occur in the coastal zone. A commenter also added that the agencies "improperly assume that, should riparian buffer standards for type N streams and monitoring programs within the coastal zone adhere to existing state laws and programs concerning water quality and pesticides, then Oregon's CNPCP would warrant approval." The commenter contended that existing state and federal laws do not sufficiently address a large portion of pesticide application activities and do not collect necessary pesticide application and risk data. Referring to Oregon's Water Quality Pesticide Management Plan, which has a component that relies on monitoring data, a commenter noted that the state does little monitoring of pesticides and there is no indication of data being collected in coastal watersheds. A commenter also expressed concern with the lack of timely coordination between DEQ and ODF on pesticide monitoring in a timely manner.

However, other commenters noted that the Board of Forestry specifically requires effectiveness monitoring and evaluation of the chemical rules which lay out how applicators should use pesticides. They state the rules are designed to ensure chemicals do not occur in soil, air, or waters in quantities injurious to water quality or the overall maintenance of terrestrial or aquatic life. A commenter also noted that that state has established pesticides from forest practices as a low priority in the EPA-approved Water Quality Pesticide Management Plan because pesticide monitoring for forestland has shown that pesticide concentrations are below the lowest benchmarks provided by EPA.

Source: 27-B, 27-D, 30-R, 30-S, 42-G, 42-H, 42-N, 42-O, 46-H, 48-H, 49-H, 49-I, 53-D, 53-H, 53-I, 54-E, 54-F, 54-G1, 57-II, 57-II4, 62-C, 62-F, 70-B, 70-F, 70-J, 77-R, 77-T and State Comments

Response: In order to employ an effective adaptive management approach to pesticide use, as Oregon has proposed, it is important for the state to have a robust pesticide monitoring and tracking program in place that includes timely sampling (e.g. right after aerial application) and monitoring sites throughout the coastal nonpoint area. Although some monitoring studies have not found herbicides at harmful levels, other research has (see above responses). Therefore, as discussed more fully in the final decision

Comment [AC90]: Hum. None of the other summary comments have addressed the state comments. May need to add state comments to other sections?

Comment [AC91]: Compare to final lang. in decision doc and revise as necessary.

document, NOAA and EPA believe Oregon would benefit from improved pesticide monitoring, especially expanding its pilot Pesticide Stewardship Program to include several sites within the coastal management area.

N. Inadequate Forestry Pesticide Monitoring

Comment: In addition to their general concern about pesticide use by the forest industry and inadequate riparian buffers when pesticides are applied, several commenters expressed their concern about the inadequacy of Oregon's water quality monitoring efforts following aerial application of pesticides and herbicides on forestry lands. One commenter stated Oregon has no program to determine the presence of forestry pesticides in the air and resulting in drift and deposition onto surface waters and soils. Commenters gave many examples of how they believe drinking water, human health, and fish and wildlife have been impaired by aerial spraying.

One commenter noted without effective monitoring protocols, the state lacks data to prove aerial application was a problem and improvements were needed. For example, one commenter stated there was no monitoring of aerial drift even though the Oregon Health Administration said chemicals could drift two to four miles. Another commenter also noted there was little to no coordination between DEQ and ODF on pesticide monitoring. One commenter also questioned NOAA and EPA's praise of Oregon's Water Quality Pesticide Management Plan. They noted that while the state purportedly uses water monitoring data to develop adaptive management approaches, the state actually undertakes very little pesticide monitoring and that there is no evidence the state collects any data in coastal watersheds.

It was pointed out that while NOAA and EPA found state-level frameworks and actions sufficient for addressing pesticide water quality controls, none of the pilot monitoring programs supporting this finding occur in the coastal zone. A commenter also added that the agencies "improperly assume that, should riparian buffer standards for type N streams and monitoring programs within the coastal zone adhere to existing state laws and programs concerning water quality and pesticides, then Oregon's CNPCP would warrant approval." The commenter contended that existing state and federal laws do not sufficiently address a large portion of pesticide application activities and do not collect necessary pesticide application and risk data. Referring to Oregon's Water Quality Pesticide Management Plan, which has a component that relies on monitoring data, a commenter noted that the state does little monitoring of pesticides and there is no indication of data being collected in coastal watersheds.

Source: 30-R, 42-G, 42-H, 46-H, 49-I, 57-II, 70-F

Response:

O. Forestry Clear Cuts

Comment: Commenters expressed their concerns with the amount of clear cutting that occurs in Oregon. They disagreed with the FPA rule which allows up to 120 acres of forest to be clear cut and stated that the rule did not consider the cumulative impacts of multiple clear cuts. Commenters discussed how clear cutting impacts water quality. It leads to increased sediment runoff and is typically followed by pesticide and herbicide applications that also runoff to nearby waterways. They noted that increased sediment loads lead to the loss of fish spawning habitat and that toxics from pesticides and herbicides can also impact aquatic and human health. Commenters reflected that Oregon's lack of riparian buffers made the impacts of clear cutting greater since adequate buffers were not left to help filter sediment and pesticides from runoff before reaching waterways. In addition, commenters were

concerned with clear cutting on steep, erosional slopes, which contributes to landslide problems and further impacts water quality. One commenter argued that clear cutting is not sustainable and Oregon needs to practice sustainable forestry. Commenters provided examples of clear cutting in Oregon's coastal area such as: extensive clear cutting in riparian areas, including waterways that provide drinking water; clear cutting on steep slopes with erosive soils; and clear cutting that has occurred in areas within designated spotted owl sites and high-risk areas.

Source: 12-A, 40-A, 42-D, 43-D, 53-F. 75-B, 75-C, 75-D,

Response: NOAA and EPA recognize that clear cutting, if not managed well, can have adverse impacts to water quality and designated uses. That is why NOAA and EPA placed a condition to develop additional management measures for forestry on Oregon's program that specifically require the state to provide greater protection of riparian buffers around small and medium fish-bearing streams and non-fish bearing streams, for the protection of high-risk landslide areas, and greater riparian protections during the aerial application of herbicides along non-fish bearing streams. These additional management measures will help protect water quality and designated uses from the impacts of clear cutting. The state has failed to address these additional management requirements to date. Therefore, NOAA and EPA find that the state has failed to submit a fully approvable coastal nonpoint program under CZARA. The final findings document recommends actions Oregon can take to address these additional management measure requirements and thus help protect coastal water quality from adverse impacts associated with clear cutting.

X. AGRICULTURE

A. Ability of Oregon's Agricultural Programs to Meet CZARA Requirements

Comment: Some commenters noted that they did not believe Oregon had satisfied the CZARA requirements for Agriculture and the conditions related to the agriculture management measures that NOAA and EPA placed on Oregon's Coastal Nonpoint Program. They noted that Oregon must address impacts caused by polluted runoff from agricultural activities. Various points were made about the inadequacy of the management approaches and programs the state relies on to meet the CZARA requirements (see additional comments related to agriculture below for detailed examples).

Other commenters felt that the State had satisfied the CZARA agriculture management measure requirements and the conditions placed on its program related to agriculture (see additional comments related to agriculture for detailed examples). They stated that finding otherwise would be unreasonable and contrary to CZARA requirements. It would also hold Oregon to a higher standard than other states. Some commenters also contended that if NOAA and EPA find that the State has not submitted an approvable program for agriculture, that decision would punish the agriculture community; they would lose important federal funding that help reduce polluted runoff from agricultural activities.

Source: 5-B, 13-C, 19-C, 44-F, 47-B, 49-G, 56-J, 60-A, 64-A, 64-C, 65-F, 66-A, 66-C, 66-A, 68-C, 71, 84-B

Response:

Main Points to Highlight?

- After careful consideration of all comments, the State's March 2014 submittal, and other information, NOAA and EPA have concluded _____.
- State what our decision is and why we feel that way (or just refer to rationale in decision doc if that will provide sufficient explanation).

B. Extent of Nonpoint Source Pollution from Agriculture

Comment: Several commenters questioned NOAA and EPA's claim in the proposed decision rationale that nonpoint source problems from agriculture are widespread. Commenters stated that agriculture was not the predominant land use within the coastal nonpoint management area. Two different commenters provided statistics on the extent of agricultural land within the coastal nonpoint management area to support this claim. While they presented slightly different statistics (i.e., agriculture land represents only five percent of land use in the coastal zone with pasture/hay use the predominant land use versus 25 percent of land within the coastal nonpoint program area is agriculture but less than one percent of those agricultural lands are used for activities other than pasture/hay) they arrived at the same conclusion. Given that agricultural land comprises an small overall land area and that most of these agricultural lands are used for pasture or hay, potential water quality impacts from agriculture are reduced since there is little opportunity for soil disturbance or nutrient loading from traditional row crops. They contended that most ambient water quality monitoring reports indicate "fair to excellent water quality" and monitoring sites with poor conditions are not due to agricultural activities.

The same commenters did not feel that NOAA and EPA supported their statement in the proposed decision document that water quality impacts from agriculture were widespread. They found fault with NOAA and EPA's sole reliance on NOAA National Marine Fisheries Services' (NMFS) recent listings for coho salmon and draft recovery plans (both under the Endangered Species Act). One commenter stated that the draft salmon listings and recovery plan findings are based on opinion and anecdotal evidence and are unsupported by scientific fact. Therefore, they requested that NOAA and EPA's references to the coho salmon listings and recovery plan findings as they relate to agriculture impacts to water quality be removed. Another commenter stated that NMFS's listings and plans did not support a conclusion that water quality or designated use impairments due to agriculture are "widespread." For example, the commenter reflected that the NMFS documents do not specify which land use(s) require greater buffers to adequately protect coho salmon.

However, other commenters noted that polluted runoff from agricultural activities was a significant concern and contributed to water quality degradation. They noted that Oregon must address nonpoint source pollution impacts from agriculture. (See also response to "Effectiveness of Oregon's Agriculture Programs for Achieving Water Quality Standards and Protecting Designated Uses" comment.)

Source: 13-C, 19C, 64-H, 66-H, 68-H, 70-O, 71-B, 71-F, 71-M, 84-C, 84-G

Response:

Main Points to Highlight?

- What we believe the science says about the significance of ag runoff/how widespread ag NPS problem is in the coastal mngt area. Cite specific studies to support statements.

- Refute claims about inadequacy of NMFS reports?
- Note that we have revised the ag decision rationale to provide additional support for NOAA and EPA's statements about the extent of ag pollution.

C. Effectiveness of Oregon's Agriculture Programs to Achieve Water Quality Standards and Protect Designated Uses

Comment: Several commenters expressed concern that the approaches Oregon relies on to meet the CZARA agriculture management measure requirements were not sufficient to achieve water quality standards and protect designated uses. For example, several commenters stated that the Agriculture Water Quality Management Area (AWQMA) rules were too vague to ensure water quality standards are achieved. Another commenter called out Oregon's pesticide management practices as being inadequate to meet water quality standards. One commenter stated that ODA publicly acknowledged that even 100 percent landowner compliance with the current AWQMA rules was not sufficient for achieving water quality standards. The commenters concluded that it was important for the state to include agriculture management measures that enable the state to achieve and maintain water quality standards.

Commenters provided several examples of why they believe Oregon's agriculture programs are unable to meet water quality standards and designated uses. One commenter mentioned that Tillamook Bay was closed to shellfish harvesting for 100 days of the year due to polluted runoff from dairy farms. Another commenter stated that Oregon's Water Use Basin Program failed to maintain minimum water flows, which resulted in impairments to water quality and habitat needed for sensitive and endangered species.

Several other commenters, however, stated that Oregon has developed water quality standards designed to protect designated uses (including coho salmon and other endangered or threatened fish species) and that Oregon's agriculture programs, including the AWQMA Program, are designed to ensure agriculture activities do not prevent the State from achieving those water quality standards and protecting species. One commenter cited excerpts from the North Coast Basin AWQMA rule that state, among other things: "No person conducting agricultural land management shall cause pollution of any waters of the state or place or cause to be placed any wastes in a location where such wastes are likely to escape or be carried into the waters of the state by any means (ORS 468B.025(1)(a))." and " No person conducting agricultural land management shall discharge any wastes into the waters of the state if the discharge reduces the quality of such waters below the water quality standards establish." (OAR 603-095-0840)

Source: 46-H, 57-AA, 57-GG, 57-NN, 65-G, 66-E, 71-N, 78-F, 78-G, 83-G, 84-B

Response:

D. Effectiveness of the Agriculture Water Quality Management Area Program and Plans for Meeting the CZARA Management Measures

Comment: Several commenters expressed concern with Oregon's reliance on the Agriculture Water Quality Management Area (AWQMA) Program to meet the CZARA management measures and address

polluted runoff. However, other commenters were supportive of the program and thought it did enable the state to meet its CZARA agriculture requirements.

Commenters who believed the AWQMA Program did not satisfy the CZARA requirements were concerned that the AWQMA plans, which include the CZARA management measures for agriculture in their appendices, are voluntary. One comment cited Oregon statute and rules that state: "The rules adopted under this subsection shall constitute the only enforceable aspects of a water quality management plan" (ORS 568.912(1)) and "Area rules are the only enforceable aspect of an AWQMA plan" (OAR 603-090-000(4)). The commenters were concerned that the AWQMA rules, which provide ODA with enforcement authority for the program, do not include specific requirements consistent with the CZARA 6217(g) management measures that adequately protect water quality. They believed the AWQMA Program was not sufficient for meeting CZARA requirements because management measures must be backed by enforceable authority under CZARA. The CZARA management measures in the appendix of the voluntary plans are not enforceable.

A few commenters who participated in AWQMA planning efforts for several different coastal basins cited personal observations that supported their conclusions that the voluntary AWQMA plans lacked specific requirements to adequately protect water quality. One participant with the Mid-Coast Basin described how the planning team rejected including more specific protections for riparian buffers even though they were aware that water quality problems in the basin, such as temperature increases and bacteria contamination from livestock, were created or being exacerbated because riparian vegetation was inadequate. Another commenter who had experience with the Inland Rogue AWQMA plan stated that what was deemed an inappropriate land use practice was subjective because the plan and rules lacked specific thresholds for what was or was not an inappropriate activity.

One commenter was also concerned that ODA does not have an implementation plan, with interim milestones and timeline, in place to ensure the voluntary actions in the plans occur. Another commenter also called out the State's inability to point to significant achievements of the AWQMA Program to improve agriculture land use practices that have caused or contributed to water quality impairments. They believed that since the AWQMA plans and rules have been in place since 2007, the State should have more to show for the program by now if it was actually achieving its goals to protect and improve water quality.

Several other commenters had a different perspective. They felt that the AWQMA Program does enable Oregon to satisfy the CZARA agriculture management measures and the conditions related to agriculture that NOAA and EPA placed on its coastal nonpoint program. One commenter contended that the AWQMA plans and rules exceed CZARA requirements. The commenters stated the coastal AWQMA plans directly reference the CZARA management measures and that ODA has the authority to require the CZARA management measures and to impose additional measures, if necessary. They believed the AWQMA plans and rules provide sufficient goals, policies, and authorities, to improve water quality within coastal watersheds.

One commenter stated that the AWQMA Program includes many practices that are consistent with (or exceed) the CZARA management measures. For example, the plans and rules ensure animal wastes are placed to avoid impacts to water quality, site capable riparian vegetation is in place to reduce erosion, strict nutrient limits are established for waterways, and livestock access to waterways is limited to protect water quality and streambanks.

A few commenters objected to claims by others that the AWQMA plans and rules do not provide specific practices or requirements, such as set buffer widths. They claimed mandating such specific requirements be included in the plans or rules would be applying a "one-size-fits-all" approach which is contrary to the inherent flexibility CZARA affords. One commenter also stated that neither CZARA nor the 6217(g) guidance prescribes specific agricultural practices through the CZARA management measures.

Some commenters, who included several farmers, described how ODA works with ranchers and farmers to modify, reduce, and remove ineffective agriculture practices. They stated that farmers have worked hard to meet or exceed water quality standards by working with the State to develop AWQMA plans to set watershed goals and prioritize investments to enhance water quality. Farmers noted that they willingly participated in the AWQMA Program and voluntary programs because they had the understanding that the program and their voluntary efforts would meet all federal and state regulatory requirements for agriculture.

Commenters also noted the success of the state's AWQMA Program and voluntary efforts over the years. For example, one commenter stated between 1998 and 2012, the Oregon Watershed Enhancement Board (OWEB) contributed nearly $18 million to support coastal agriculture projects and Soil and Water Conservation Districts and landowners provided an additional $5 million in-kind support. These efforts restored over 950 linear stream miles and improved agricultural practices that impacted over 2,750 acres of farmland. In addition, the commenter also stated, that landowners voluntarily enrolled thousands of acres of farmland in federal programs designed to improve water quality.

Source: 55-E, 56-J, 57-CC, 57-EE, 64-C, 64-F, 65-B, 65-C, 65-D, 65-E, 65-F, 66-C, 66-F, 68-C, 68-F, 71-A, 71-B, 71-C, 71-G, 71-K, 71-N, 71-P, 71-Q, 71-R, 72-A, 73-A, 78-H, 78-I, 78-K, 84-D, 84-I, 84-N, 84-O

Response:

E. Need for Oregon's Agriculture Programs to Have a Greater Focus on Prevention Rather than Rely on Addressing Water Quality Impairments After They Occur

Comment: A few commenters asserted that the AWQMA Program and plans only focused on areas with known water quality impairments. They felt that the AWQMA Program did not provide sufficient protection of more pristine areas to prevent them from becoming degraded. They stated by focusing on impairment rather than protection, ODA is allowing polluting practices to occur for many years until water quality becomes degraded and is documented through a TMDL. Commenters were also concerned that the AWQMA plans do not require restoration, especially pertaining to riparian buffers surrounding former agricultural sites. (*See also discussion under Agriculture-Buffer and Agriculture-Legacy Issues comments.*)

On the contrary, a few other commenters disagreed with NOAA and EPA's statement in the proposed decision rationale that AWQMA plans focused primarily on impaired areas. They stated that landowners are generally expected to protect water quality, not just impaired waters. They believed that ODA implements controls through the AWQMA Program to address sources of existing impairments as well as prevent polluted runoff elsewhere. One commenter provided a specific example of the North Coast Basin rules (OAR 603-095-0840) to illustrate how the standards address impaired areas as well as

provide protection and restoration benefits. Another commenter also felt that ODA was coordinating well with DEQ to ensure continued integrity of the AWQMA Program and plans and ensure that landowners have the tools and adaptive approach to address polluted runoff.

Source: 46-H, 55-F, 80-I, 84-A, 84-D, 84-M, 84-P

Response:

F. Effectiveness of Oregon Department of Agriculture's Enforcement of Agriculture Programs

Comment: Several commenters stated they were concerned with ODA's lack of enforcement of its AWQMA rules and other agricultural rules. Other commenters did not believe there was an enforcement problem. They argued that CZARA does not require states to take specific enforcement action to receive approval. Rather, states only need to have management measures in place, backed by enforcement authority, which they believed Oregon has done.

Commenters that were concerned about enforcement of Oregon's agriculture programs believed Oregon's complaint-driven enforcement approach was not sufficient and that the state was not using its enforcement authorities when voluntary agriculture approaches fail to protect water quality. For example, one commenter, who is an agricultural landowner and a member of an AWQMA local advisory committee, discussed how the committee was informed that the AWQMA plan would be complaint driven and compliance was voluntary. The commenter questioned the effectiveness of this approach for protecting water quality and designated uses when ODA only issued three fines over the last eleven years.

One commenter felt ODA worked to protect the agriculture industry more than implement the authorities it has to protect water quality. As a result, enforcement was only taken for very egregious cases and even then, it proceeded slowly. Another commenter also stated how difficult it could be to get ODA to take action on a complaint since only signed complaints actually triggered an investigation. Another commenter asserted that polluted runoff from agriculture was difficult to control because most agricultural activities were exempted from the same Clean Water Act standards. Over all, these commenters believed ODA's lax enforcement has allowed agriculture activities to continue to cause and contribute to water quality and designated use impairments.

In addition, one commenter also was concerned that ODA lacks an implementation plan to ensure that voluntary implementation of the AWQMA plans and other voluntary efforts occur. They noted that the implementation plan should include a proactive approach to enforcement (i.e., not rely entirely on a complaint-driven approach) and an enforcement response plan to ensure proper enforcement procedures and corrective actions are triggered when voluntary agricultural efforts are not being implemented or when voluntary approaches are not successfully protecting water quality.

Other commenters provided an opposing view. They argued that most agricultural landowners comply with existing water quality management rules and meet relevant CZARA requirements. They asserted that Oregon has a process in place to effectively address noncompliance issues and that ODA has the ability to enforce the AWQMA program and ensure compliance with water quality requirements.

They refute claims by others that few ODA enforcement actions over the years demonstrate that ODA does not have the ability and/or will to enforce the AWQMA program and ensure water quality is protected. On the contrary, the commenters noted that when a problem is identified, ODA first works closely with the noncompliant landowner to make necessary land use changes voluntarily before turning to enforcement. Therefore, they explained that most issues are corrected before a formal enforcement action is needed. Commenters also highlighted the existing review and monitoring processes ODA has enacted to track program "implementation and effectiveness". (See also discussion for "Agriculture-Monitoring and Tracking" comment.)

As noted above, they also contended that while CZARA requires the State and its agencies to have enforcement authority for the CZARA management measures. One commenter stated that CZARA does not require states to take a certain number of enforcement actions or meet a specific enforcement threshold. They believe that not only does ODA have suitable enforcement authority but the state's July 2013 coastal nonpoint program submission, which provided examples of several agriculture enforcement actions, demonstrates that ODA has used its authority to enforce the AWQMA rules, where necessary and appropriate.

Source: 41-C, 46-H, 53-E, 54-K, 55-I, 55-D, 56-J, 56-K, 78-J, 80-F

Response: Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

G. Inadequacy of Oregon Water Resources Department's (OWRD) Water Use Basin Program for Meeting Irrigation Management Measure

Comment: One group commented that the Oregon Water Resources Department's (OWRD's) Water Use Basin Program is inadequate for meeting CZARA requirements for agriculture. They suggested that NOAA and EPA were incorrect when finding that OWRD's Water Use Basin Program supports the irrigation measure and reiterated that Oregon's Basin Programs do not ensure that water quality and habitat for sensitive and endangered species will not be impaired. They urged EPA and NOAA to look closely at the deficiencies of the Basin Programs before attributing any water quality or fish habitat protection value to them as a measure in support of Oregon's agricultural conditions. They added that Oregon's rules provide no assurance that water use will be adequately limited to maintain minimum flows and that teh Basin Programs fail, in practice, to protect minimum perennial streamflows and instream rights held by OWRD for the protection of aquatic wildlife and water quality. They concluded that EPA should disapprove Oregon's agricultural measures and acknowledged the lack of protection offered by Oregon's Water Use Basin Programs for preservation of aquatic life and designated uses in the agencies' final determination.

Source: 65-B, 65-C, 65-D, 65-E, 65-F, 65-G

Response:

H. Agriculture Riparian Buffers

Comment: Various commenters noted the importance of, and need for, adequate agricultural riparian buffers along both fish and non-fish bearing streams. They stated the buffers were important to protect water quality, including cold water temperatures needed for the recovery and health of native salmon. The commenters felt that Oregon currently lacks appropriate riparian management practices for agriculture lands to help meet water quality standards and to protect coho salmon, amphibians, and drinking water. In addition, a commenter pointed out that ODA's remote sensing monitoring of riparian areas has shown little improvements in buffers despite implementation of the AWQMA Program and other agriculture programs.

Several commenters provided specific examples of Oregon's poor riparian buffer management. For example, several commenter contended that management measures in Oregon's agricultural plans are deficient to provide protection of stream banks, bank stability, and the destruction of riparian areas by livestock. They explained that stream banks are key to protecting water bodies from elevated sediment delivery that affects levels of turbidity and fine sediment in streams and eroding stream banks contribute to temperature increases, reduce large woody debris to streams, which is critical to salmonid recovery, and contribute to nutrient and pesticide delivery from upslope agricultural activities.

Another commenter spoke about their experience serving as an advisory member to the Mid-Coast Basin AWQMA Advisory Committee during its local area planning in 2009. They explained that when specific buffer proposals were presented to the committee, "All of the specific proposals for riparian protection were rejected by the committee, despite their knowledge of specific water quality problems in the basin created or exacerbated by inadequate riparian vegetation, including stream temperature problems and bacterial contamination from livestock."

A few commenters also discussed how the AWQMA rules do not require active restoration of suitable riparian vegetation. Rather the rules only prohibit agricultural activities from preventing the natural re-establishment of "site capable" riparian vegetation that often results in the establishment of invasive species, like blackberries, along the riparian zone that do not provide the same water quality protection and habitat value as native vegetation.

However, other commenters stated Oregon's current riparian management practices were sufficient for meeting CZARA requirements. Commenters asserted the AWQMA rule did provide for protection of riparian areas and stated that if a violation occurred, i.e. agricultural activities inhibit establishment of riparian vegetation, the livestock would have to be removed or managed appropriately. A commenter provided an example of several North Coast Basin AWQMA rule requirements, such agriculture management activities must be conducted in a way to maintains stream bank integrity through 25-year storm events and minimize the degradation of established native vegetation while allowing for the presence of nonnative vegetation.

The commenter refuted others' claims that the "site capable" vegetation that the rules required was not effective at protecting water quality. They asserted that "site capable" vegetation plays an important role at filtering pesticides from runoff before it enters surface waters. Commenters also pointed out that

farmers and ranchers implemented many practices to protect and restore riparian vegetation such as installed miles of piping for livestock watering, and planted and fenced many miles of stream banks.
In addition, commenters stated that there is no requirement in CZARA or Section 6217(g) requiring specific riparian buffers on agricultural lands and that NOAA and EPA provided no concrete evidence in their proposed decision document to demonstrate why Oregon needed to improve its management of agriculture riparian buffers to meet CZARA requirements. One commenter did not believe the NMFS reports NOAA and EPA cited in the proposed decision document specified that agriculture land use as a reason better riparian buffers were needed to protect coho salmon.

Source: 15-H, 44-F, 49-G, 55-E, 55-H, 57-SS, 57-XX, 57-YY, 57-ZZ, 71-H, 71-R, 71-W, 71-AI, 71-AJ, 72-A, 78-G, 78-F, 81-A, 83-E, 83-F, 83-L, 84-G, 84-O

Response:

I. Agriculture Pesticide Management

Note: Comments specifically related to pesticides and agriculture are summarized and responded to here. However, NOAA and EPA received general comments on pesticide management as well as specific pesticides related to forestry. Please see Pesticides-General and Forestry-Pesticides for a full discussion of the comments received related to pesticides.

Comment: Commenters expressed concerns with the amount of pesticide application and the lack of management measures in place to address agricultural pesticide use in Oregon. They stated inappropriate pesticide use and controls impacted both human and environmental health. Commenters concluded that Oregon's management measures for pesticides are not adequate to meet water quality standards or support designated uses and additional management measures to address pesticides are needed. Commenters asserted that Oregon needs to improve upon both its application restrictions, providing greater controls on spraying in coastal watersheds, and to improve its protections for all stream classes.

Commenters provided specific examples to support their belief that agriculture pesticide management was inadequate. For example, members of AWQMA local advisory committees relayed that the committees were advised to not even consider pesticides as a pollutant. Therefore, they questioned if the AWQMA Program is sufficient to meet the CZARA 6217(g) management measure requirements. Another commenter referred to an herbicide monitoring study that found that polluted runoff resulted from herbicide applications on agricultural lands, as well as other sources.
In addition, other commenters stated that Oregon does not have sufficient programs in place to monitor pesticide use and impacts. They argued that unknown and unmonitored uses, along with unmonitored health and environmental risks associated with pesticides contribute to the inadequacy of Oregon's program. While another commenter contended that because most risk assessments for pesticides are based on old and incomplete data and endpoint evaluations, pesticide management measures should require re-evaluations of endpoints and health and environment impacts. In addition, they believed that risk assessments should also include testing of inert ingredients found in pesticide products.

One commenter also stated that NOAA and EPA's rationale for agriculture in the proposed decision document does not make any findings about the adequacy of Oregon's program to protect water quality and designated uses from pesticides applied to agricultural lands.
However, not all commenters believed Oregon's agriculture pesticide management program was inadequate. Other commenters stated that Oregon does have appropriate management practices and rules in place. A commenter pointed out that Oregon law already encompasses all 6217(g) requirements for pesticide management. All landowners are required to follow pesticide label requirements under the Federal Insecticide, Fungicide, and Rodenticide Act ("FIFRA") and follow ODA's pesticide rules. These rules, coupled with the state's Pesticide Stewardship Program, CAFO, and AWQMA Programs allow the State to address any agricultural pesticide issues. In addition, a commenter mentioned that the AWQMA Program's site capable vegetation requirement for riparian areas filters pesticides from runoff before they enter waterways. Also, because applying pesticides costs money, farmers have an economic incentive to use them judiciously and keep pesticides where they are applied.
Source: 28-D, 38-A, 46-H, 54-B, 54-D, 54-G, 54-H, 54-L, 54-M, 54-N, 54-O, 54-P, 54-Q, 54-R, 54-S, 57-GG, 57-HH, 58-G, 59-A, 71-AH, 71-AI, 71-AJ, 71-AK, 72-A, 81-B, 83-A, 83-E, 83-M

Response:

I. Combined Animal Feeding Operations

Comment: A few commenters expressed concerns with Oregon's track record at regulating livestock practices. They suggested that Oregon does not even have agriculture management measures in place to adequately regulate combined animal feeding operations (CAFOs). One commenter suggested additional agriculture management measures were needed to improve permitting, monitoring, and relocation of CAFOs.

One commenter pointed out that enforcement of CAFO and other livestock management measures is problematic in Oregon. Inadequate enforcement contributes to degraded water quality. For example, commenters referenced many examples of actual water pollution from livestock, including fecal waste from cows floating in waterways. They described instances where complaints against CAFOs have been submitted repeatedly to ODA but they received no response or resolution to their complaints.

On the other hand, other commenters explained that Oregon's existing requirements relating to managing CAFOs are adequate to maintain water quality and disagreed that additional management measures are needed. They stated that ODA's rules require landowners to evaluate fertilizer efficiency, assess the layout of their farms and storage facilities, locate potential areas where runoff could contact nutrient carrying substances and relocate or avoid placing storage there.

In addition, they stated that CAFOs are subject to state-wide NPDES permits and are therefore exempt from 6217(g). Moreover, they contended that landowners still go beyond what is required in the 6217(g) CAFO management measures by ensuring there is no discharge to water; runoff is stored and covered; and waste and runoff nutrient levels, temperature, amount of time stored, and time and quantity of land application of manure at agronomic rates are measured and monitored.

Source: 15-F, 15-H, 60-C, 71-Y, 71-Z, 71-AE, 81-B

Response: In 1998, NOAA and EPA placed the following conditions on Oregon's coastal nonpoint program related to the CZARA 6217(g) management measures for large and small CAFOs: "include in its program management measures in conformity with the 6217(g) guidance for facilities where animals are confined for less than four months and that do not have prepared surfaces or waste water control facilities…[and] provide a strategy… for use of the state's water quality law (ORS 468B) as a back-up enforceable mechanism to ensure implementation of the management measures for confined animal facilities." As NOAA and EPA more fully explain in the final decision document, the federal agencies find that after changes were adopted to ORS 468B and OAR 603-074, they are now consistent with the CZARA 6217(g) management measures for large and small CAFOs.

Ex. 5 - Deliberative

Ex. 5 - Deliberative

Ex. 5 - Deliberative

J. Agriculture Grazing Management

Comment: A few commenters provided comments specifically on the adequacy of Oregon's Coastal Nonpoint Program in addressing the 6217(g) grazing management measure. Several commenters believed the 6217(g) management measures, themselves, were flawed and did not provide adequate protection of water quality. They stated that as written, the grazing management measure allows for broad interpretation that can result in the adoption of ineffective grazing management approaches that do not protect or restore riparian vegetation and do not provide stream shading, as they believed was the case in Oregon. For example, they did not believe the 6217(g) management measure requirement to provide salt and water for livestock away from riparian zones was effective. In addition, the commenter criticized the 6217(g) measure for not requiring a halt to grazing in riparian areas during the summer.

However, other commenters supported Oregon's grazing practices. They felt the AWQMA Program is consistent with the 6217(g) grazing management measure and protects stream banks and water sources from grazing activities. They point out that AWQMA rules limit the amount of time livestock have access to waterways. In addition, the rules do not allow agricultural activities, including grazing, to inhibit the growth of site capable of riparian vegetation. If there a violation of this restriction, livestock would need to be removed or managed more appropriately.

Source: 57-YY, 71-AG, 71-AH, 71-AI

Response:

K. Need for Additional Management Measures for Agriculture

Comment: Multiple commenters noted that Oregon needed to implement additional management measures for agriculture to meet water quality standards and to protect designated uses. One commenter specifically asserted that the existing agriculture management measures do not protect waterbodies from temperature pollution. They stated that temperature pollution is the most pervasive water quality problem in coastal lowland streams and that elevated temperatures can also impact salmonid productivity. They concluded that it is very likely agriculture activities are contributing to temperature standard violations because for most TMDLs, the allowable temperature increases for nonpoint source pollutants is zero. They stated that none of the AWQMA rules for Oregon coastal watersheds, incorporate additional management measures needed to meet the zero load allocations established in the temperature TMDLs.

Commenters suggested specific additional management measures to protect water quality. For example, to address temperature pollution, several comments reflected that minimum riparian buffer widths need to be established. One commenter stated that published literature suggested that the minimum width should be no less than 100 feet (30 meters) and that greater than 100 foot buffers may be needed in certain areas, such as low gradient meandering channels that are adjacent to designated critical habitat for listed species. Another commenter believed that specific height and density requirements also needed to be established for riparian vegetated buffers.

Other additional management measures that commenters identified included: adopting better pesticide management; fencing streams and riparian areas to reduce impacts by livestock; improving permitting, monitoring and relocation of CAFOs; and adopting regulatory provisions to promote the establishment of riparian vegetation in critical habitat areas and the reintroduction of beaver in suitable locations. One commenter expressed their concern over diminishing beaver because they are being trapped and hunted out. They note that beavers play an important role in maintain natural stream channels, wetlands, and complex floodplains.

On the other hand, several other commenters asserted that additional management measures for agriculture were not needed. The commenters noted that EPA and NOAA have not provided specific data or information that would support the need for additional management measures. They also noted that CZARA does not require states to implement specific practices, such as specific requirements for agricultural riparian buffers or the restoration of lands to pre-agricultural uses.

In addition, they assert that CZARA does not give NOAA and EPA the authority to place specific additional management measure requirements on a state's program. Rather, they state that the CZARA guidance notes that it is the state's responsibility to identify when, where, and what additional management measures are needed. (See discussion under General-Additional Management Measures for response to this specific comment).

Source: 15-H, 23-B, 44-C, 44-F, 44-G, 47-B, 56-M, 57-CC, 57-EE, 57-GG, 57-XX, 60-A, 60-E, 64-E, 66-E, 68-E, 71-E, 71-H, 71-I, 84-I

K. Economic Achievability of Agriculture Management Measures

Comment: A few commenters emphasized that CZARA requires that all management measures must be "economically achievable" (Section 6217(g)(5)). Therefore they asserted that it would be inconsistent with CZARA to require landowners to implement management measures that are not "economically achievable." They stated that Oregon's AWQMA Program is rooted in implementing economically achievable agriculture practices, consistent with CZARA statutory requirements. On a related note, another commenter also stated that the more voluntary-based approaches, backed by enforceable authorities, Oregon employs to support implementation of its 6217(g) agriculture management measures are more cost-effective because they allow the landowner the flexibility to select the right best management practice for his or her specific site conditions.

Sources: 64-E, 64-I, 66-E, 66-I, 68-E, 68-I, 71-H, 84-L

Response: Yes, the commenters are correct that the CZARA management measures need to be economically achievable. Specifically, CZARA defines management measures to be "economically achievable measures for the control of the addition of pollutants from existing and new categories and classes of nonpoint sources of pollution, which reflect the greatest degree of pollutant reduction achievable through the application of the best available nonpoint pollution control practices, technologies, processes, siting criteria, operating methods, or other alternatives" (Section 6217(g)(5)). In developing the CZARA 6217(g) management measures, EPA determined that "all of the management measures in [the] guidance are economically achievable, including, where limited data were available, cost-effective." (See EPA. 1993. *Guidance Specifying Management Measures for Sources of Nonpoint Pollution in Coastal Waters,* pg. 1-13.)

When evaluating a state's coastal nonpoint program, the federal agencies do not consider if one approach is more cost-effective than another, only that the approach the state proposes meets the CZARA 6217(g) management measure requirements.

L. Addressing Agriculture Legacy Issues

Comment: A few commenters expressed their concern about legacy agriculture issues, such as where riparian vegetation may have regrown on former agricultural land but is comprised largely of invasive species (i.e., blackberry brambles) and does not provide sufficient protection of stream water quality or create quality habitat. They criticized the AWQMA Program as not doing enough to address legacy issues. They stated that the AWQMA Program does not require active restoration--only removal of current practices that impair restoration. The commenter contended that this creates a gap that must be addressed if Oregon is going to meet its water quality standards. They believed that Oregon needed to adopt additional management measure requirements to address this legacy issue.

Another commenter believed ODA has the authority needed to take action against legacy issues, they did not believe the agency had the political will to do so.

Several other commenters opposed the statement NOAA and EPA made in the proposed decision findings that AWQMA planning and enforcement does not address "legacy" issues created by agriculture activities that are no longer occurring. They stated that neither CZARA nor the 6217(g) guidance define

legacy issues or require that state coastal nonpoint programs to address legacy issues. They asserted that nothing within CZARA indicated Congress ever intended for states to consider "legacy" issues through their coastal nonpoint programs.

They stated that even though there is no CZARA requirement to address legacy agriculture issues, Oregon does have a process in place to identify opportunities to enhance and restore watersheds, including address "legacy" agriculture issues. They assert state invests money to address these issues addresses these issues through a variety of programs such as the Oregon Plan for Salmon and Watersheds, the Oregon Aquatic Habitat Restoration and Enhancement Guide, the Oregon Watershed Enhancement Board riparian restoration projects, AWQMA plans, and many other federal, public and private partnerships. The commenter states these programs are successful due to the voluntary efforts of many Oregon agriculture landowners.

Another group contended that NOAA and EPA contradicted themselves in regard to legacy agriculture issues in the proposed decision document. They noted the federal agencies made a finding that legacy effects were not addressed through existing regulatory tools but then concluded that agriculture plans were a regulatory mechanism to address past actions that are the primary cause of eroding stream banks.

Source: 15-H, 44-F, 55-I, 57-X, 71-T, 80-I, 84-J, 84-K

Response: First, NOAA and EPA would like to clarify what appears to be some confusion around the statements made in the December 20, 2013, proposed findings document. The statement in the proposed findings document that noted that the AWQMA Program does not address "legacy" issues was not a finding of NOAA and EPA. Rather, the bulleted list on page 14 of the proposed findings document relays concerns the federal agencies have heard others express regarding Oregon's agriculture practices, including the AWQMA Program's ability to address "legacy" issues. The concerns listed were not necessarily the views of NOAA and EPA.

NOAA and EPA disagree with the comment that statements the federal agencies made in the proposed findings document contradict one another. The commenter believed that NOAA and EPA's 2004 informal interim approval of the erosion and sediment control management measure conflicted with the statement that AWQMA planning and enforcement does not address "legacy" issues created by agriculture activities that are no longer occurring. First, as explained in the above paragraph, the statement in the proposed decision document about the adequacy of Oregon's agriculture programs to address "legacy" issues was relaying concerns expressed by others; it did not necessarily reflect the views of the federal agencies. Second, the CZARA 6217(g) guidance notes that management measure for erosion and sediment control is "intended to be applied by states to activities that cause erosion on agricultural land and on land that is converted from other land uses to agricultural lands." The management measure is not designed to address past agriculture actions that are causing erosion on land that is no longer used for agriculture. Therefore, the federal agencies' 2004 informal interim approval of the erosion and sediment control management for agriculture, which is not a definitive finding or decision, in no way asserts the state has programs in place to address "legacy" issues on former agriculture land.

NOAA and EPA recognize that the "legacy" impacts of agriculture, such as riparian areas dominated by invasive species that provide poor habitat value and may not protect streams from polluted runoff and

erosion as effectively as native vegetation is a concern. The federal agencies strongly encourage Oregon to include more specific language in the AWQMA rules and plans about the need to restore riparian areas and address other legacy issues that may result from past agricultural activities. The state should also use existing voluntary programs such as OWEB, to target these issues.

Ex. 5 - Deliberative

Ex. 5 - Deliberative

M. Effectiveness of Existing Monitoring and Tracking Programs for Agriculture

Comment: Several commenters expressed their concern with Oregon's existing monitoring and tracking efforts to evaluate the effectiveness of its agriculture programs. They did not believe they were sufficient to understand how well existing management approaches are being implemented, how effective those approaches are at protecting and restoring water quality, and when adaptive approaches are needed. A few commenters did acknowledge that ODA's new strategy for more targeted water quality monitoring is a step forward, but they also believed a more robust monitoring and tracking program was needed for agriculture. One commenter asserted that a State independent science team found ODA's proposed monitoring plan lacked detail and focus and lacked an understanding of basic monitoring.

Several commenters specifically stated that ODA does not effectively track implementation and effectiveness of AWQMA plans. A commenter suggested that Oregon needed to include an overall compliance strategy to ensure that AWQMA plans and rules are adequately implemented to meet TMDL load allocations and water quality standards. They added that there must be a policy and proactive process to assess AWQMA plan and rule implementation and for taking appropriate enforcement action when violations occur.

Another commenter stated there was a significant gap in the existing science to understand the effectiveness of Oregon's agricultural practices in protecting water quality and designated uses. They noted that the State cannot move forward with stronger agriculture regulations without first having a good understanding of how its existing programs are falling short and what improvements are needed to ensure water quality standards are being met.

On the other hand, other commenters believed the State's existing monitoring and tracking efforts were effective at assessing implementation of agriculture practices. Specifically they noted that biennial reviews of the AWQMA plans, with about 18 reviews done each year, provide a way to track plan implementation. They also highlighted the State's efforts to develop a more formalized evaluation processes through the Strategic Implementation Areas and Focus Areas process to target priority areas and issues. They also stated the State's new Enterprise Monitoring Initiative, which began in 2012, monitors waterways passing through agriculture lands and can be used to inform the effectiveness of the AWQMA program. In addition, a commenter asserted that most ambient water quality monitoring in the coastal region reported fair to excellent water quality and sites with poor conditions were not due to agriculture activities.

Source: 46-H, 49-I, 53-E, 53-H, 54-R, 55-G, 55-H, 57-11, 70-B, 70-F, 70-K, 70-L, 71-O, 71-S, 71-Z, 72-A, 73-A, 78-H, 79-I, 80-F, 80-G

Response:

XI. HYDROMODIFICATION

Comment: A couple of commenters discussed the negative impacts of hydromodification, noting the effects of dams on water quality and habitat and impacts from channel modification. They declared that Oregon has failed to control polluted runoff from eroding stream banks and shorelines and it does not have programs in place to protect and restore channel conditions from modification.

Source: 46-H, 49-F

Response: NOAA and EPA recognize commenters are concerned about the adverse impacts of hydromodifications along waterways in coastal Oregon. However, NOAA and EPA did not propose to find the state has failed to submit a fully approvable coastal nonpoint program based on the approvability of the hydromodification management measures and did not solicit comment on this issue at this time. The public will have an opportunity to comment on the hydromodification management measures of Oregon's Coastal Nonpoint Program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program.

XII. WETLANDS

Comment: One commenter noted that Oregon does not have programs in place to protect and restore riparian areas needed to maintain cool stream temperatures and habitat or to protect and restore wetlands.

Source: 49-F

Response: NOAA and EPA recognize commenters are concerned that Oregon may not have programs in place to protect and restore riparian areas and wetlands. However, NOAA and EPA did not propose to find the state has failed to submit a fully approvable coastal nonpoint program based on the approvability of the broad wetlands and riparian area management measures and did not solicit comment on this issue general issue (outside of riparian protection for forestry and agriculture

activities) at this time. The public will have an opportunity to comment on the general wetland and riparian management measures of Oregon's Coastal Nonpoint Program at some point in the future before the agencies fully approve Oregon's coastal nonpoint program. (See specific comments about the adequacy of riparian protection in relation to forestry in agriculture activities, and NOAA and EPA's responses to those comments, under the Forestry and Agriculture sections above).